

BAYOU PETIT CAILLOU WATERSHED TMDL
FOR BIOCHEMICAL OXYGEN-DEMANDING SUBSTANCES

SUBSEGMENTS 120503

SURVEYED 8/19 - 21/2003

TMDL REPORT

By:
Water Quality Modeling Section
Water Quality Assessment Division
Office of Environmental Assessment
Louisiana Department of Environmental Quality

JANUARY 7, 2005

EXECUTIVE SUMMARY

This report presents the results of a watershed based, calibrated modeling analysis of Bayou Petit Caillou. The modeling was conducted to establish a TMDL for biochemical oxygen-demanding pollutants for the Bayou Petit Caillou watershed. The model extends from the headwaters at Bayou Terrebonne to the Klondyke Bridge. Bayou Petit Caillou is located in south Louisiana and this subsegment includes the St. Louis Canal as a tributary. Bayou Petit Caillou is in the Terrebonne Basin and this study includes Water Quality Subsegment 120503. The area is sparsely populated and land use is dominated by agriculture and wetlands. There were no permitted dischargers located along this subsegment.

Input data for the calibration model was developed from data collected during the August 2003 intensive survey; data collected by LDEQ monitoring stations in the watershed; USGS drainage area and low flow publications; and data garnered from several previous LDEQ studies on nonpoint source loadings. The nonpoint source loads included nonpoint loading not associated with flow. A satisfactory calibration was achieved for the main stem. For the projection models, data was taken from ambient temperature records. The Louisiana Total Maximum Daily Load Technical Procedures, 09/22/2003, have been followed in this study.

The various spreadsheets that were used in conjunction with the modeling program may be found in the appendices in the order in which they were used. Water quality calibration was also based on measurements taken during the survey. Projections were adjusted to meet the dissolved oxygen criteria by reducing total nonpoint source loads.

Modeling was limited to low flow scenarios for both the calibration and the projections since the constituent of concern was dissolved oxygen and the available data was limited to low flow conditions. The model used was LAQUAL, a modified version of QUAL-TX, which has been adapted to address specific needs of Louisiana waters.

Bayou Petit Caillou, Subsegment 120503, was on the 303(d) list starting with the 1999 list and is listed on the 2004 list. Subsegment 120503 is found to be "not supporting" its designated use of Fish and Wildlife Propagation and Shellfish Propagation. It is "fully supporting" Primary and Secondary Contact Recreation. Bayou Petit Caillou was subsequently scheduled for TMDL development with other listed waters in the Terrebonne Basin. The suspected causes of impairment are dissolved oxygen, nutrients, and fecal coliform. The suspected sources are drought related sources, various unknown sources, on site treatment systems, package plants, and total retention domestic sewage lagoons.

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position, as supported by the declaratory ruling issued by Secretary Givens in response to the lawsuit regarding water quality criteria for nutrients (Sierra Club v. Givens, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998)), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. The implementation of this TMDL through wastewater discharge permits and implementation of best

management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also control and reduce the nutrient loading from those sources.

A calibrated water quality model for the watershed was developed and projections were modeled to quantify the non-point source load reductions which would be necessary in order for Bayou Petit Caillou, subsegment 120503 to comply with its established water quality standards and criteria. This report presents the results of that analysis.

The results of the projection modeling for subsegment 120503 show that the water quality standard for dissolved oxygen can be maintained during the summer critical season with a 75% reduction of total nonpoint pollution. The minimum DO is 5.22 mg/l. There were no appropriate reference streams to calculate background conditions.

Table 1. Total Maximum Daily Load (Sum of UCBOD¹, UNBOD, and SOD)

ALLOCATION	Summer	Winter
	May – Oct (lbs/day)	Nov - Apr (lbs/day)
Total Nonpoint Source LA	1,674	1,340
Future Growth Reserve (10%)	208	168
MOS (10%)	208	167
TMDL	2,090	1,673
Total Nonpoint Reduction Required	75%	75%

***Note1: UCBOD as stated in this allocation is Ultimate CBOD.

UCBOD to CBOD₅ ratio = 2.3 for all treatment levels

Permit allocations are generally based on CBOD₅***

The results of the projection modeling for subsegment 120503 show that the water quality standard for dissolved oxygen can be maintained during the winter critical season with the same 75% reduction of total nonpoint pollution. The minimum DO is 6.34 mg/l in subsegment 120503 and has a winter seasonal water quality standard for dissolved oxygen of 5.0 mg/l.

The high reduction in the total nonpoint loading, indicates that the current criterion for subsegment 120503 is inappropriate. A reassessment of the dissolved oxygen criteria for this subsegment is recommended. All summer and winter runs assumed a 5.0 dissolved oxygen standard.

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ Surveillance Section collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term data base for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial 305(b) report (*Water Quality Inventory*) and the 303 (d) list of impaired waters. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to the surface water quality monitoring. In 2004 a four year sampling cycle replaced the previous five year cycle. Approximately one quarter of the states watersheds will be sampled in each year so that all of the states watersheds will be sampled within the four year cycle. This will allow the LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated at the end of each year, waterbodies may be added to or removed from the 303(d) list.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
LIST OF TABLES	vii
LIST OF FIGURES	vii
Introduction.....	1
2. Study Area Description	1
2.1 General Information.....	1
2.2 Water Quality Standards.....	4
2.3 Wastewater Discharges.....	4
2.4 Water Quality Conditions/Assessment	4
2.5 Prior Studies.....	5
3. Documentation Calibration Model.....	5
3.1 Program Description	5
3.2 Input Data Documentation.....	7
3.2.1 Model Schematics and Maps	7
3.2.2 Model Options, Data Type 2.....	7
3.2.3 Temperature Correction of Kinetics, Data Type 4.....	8
3.2.4 Reach Identification Data, Data Type 8.....	8
3.2.5 Advective Hydraulic Coefficients, Data Type 9.....	8
3.2.6 Initial Conditions, Data Type 11.....	8
3.2.7 Reaeration Rates, Data Type 12.....	9
3.2.8 Sediment Oxygen Demand, Data Type 12	9
3.2.9 Carbonaceous BOD Decay and Settling Rates, Data Type 12	9
3.2.10 Nitrogenous BOD Decay and Settling Rates, Data Type 15	9
3.2.11 Incremental Conditions, Data Types 16, 17, and 18.....	9
3.2.12 Nonpoint Sources, Data Type 19	9
3.2.13 Headwaters, Data Types 20, 21, and 22.....	10
3.2.14 Wasteloads, Data Types 23, 24, and 25	10
3.2.15 Boundary Conditions, Data Type 27	10
3.3 Model Discussion and Results	10
4. Water Quality Projections	11
4.1 Critical Conditions, Seasonality and Margin of Safety	12
4.2 Input Data Documentation.....	13
4.2.1 Model Options, Data Type 2.....	13
4.2.2 Temperature Correction of Kinetics, Data Type 4.....	13
4.2.3 Reach Identification Data, Data Type 8.....	14
4.2.4 Advective Hydraulic Coefficients, Data Type 9.....	14
4.2.5 Initial Conditions, Data Type 11.....	14
4.2.6 Reaeration Rates, Carbonaceous BOD Decay and Settling Rates, Nitrogenous BOD Decay and Settling Rates, Data Type 12 and 15	14
4.2.7 Incremental Conditions, Data Types 16, 17, and 18.....	14
4.2.8 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloads, Data Type 12, 19, 20, 21, 22, 24, 25, and 26.....	14
4.2.12 Boundary Conditions, Data Type 27	16

4.3 Model Discussion and Results	16
4.3.2 Summer Projection.....	16
4.3.3 Winter Projection.....	17
4.4 Calculated TMDL, WLAs and Las	18
4.4.1 Outline of TMDL Calculations.....	18
4.4.2 Bayou Petit Caillou, Subsegment 120503 TMDL	19
5. Sensitivity Analysis	20
6. Conclusions	22
7. References	23
8. Appendices.....	23
Appendix A - Calibration Model Development.....	24
Appendix A1 – Vector Diagram.....	25
Appendix A2 – Reach Setup.....	27
Appendix A3 – Calib Output and Graphs.....	29
Appendix A4 – Calib Justification.....	61
Appendix A5 – Calib Loading.....	63
Appendix A6 – Calib Sensitivity	72
Appendix B –Projection Model Development.....	106
Appendix B1 – Summer Justifications	107
Appendix B2 – Summer Loading	108
Appendix B3 – Summer Output and Graphs	119
Appendix B4 – Winter Justifications	145
Appendix B5 – Winter Loading.....	147
Appendix B6 – Winter Output and Graphs.....	156
Appendix C –Survey Data Measurements and Analysis Results	184
Appendix C1 – Water Quality Data.....	185
Appendix C2 – Cross Sections and Discharge Measurements	194
Appendix C3 – Field Notes	198
Appendix C4 – Continuous Monitoring	205
Appendix C5 – BOD Calculations.....	207
Appendix C6 – Dye Study Calculations.....	261
Appendix D – Historical and Ambient Data.....	263
Appendix D1 – Ambient Data	277
Appendix D2 – Projection Calculations	279
Appendix D3 – Land Use	281
Appendix E – Recommended (TMDL)	283
Appendix E1 – Summer TMDL Summary	285
Appendix E2 – Winter TMDL Summary	287
Appendix F – Mapping	289
Appendix F1- Overview map.....	290
Appendix F2 – Land Use Map.....	292
Appendix F3 – Dye Study Map	294
Appendix F4 – La Precipitation Map.....	296

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

LIST OF TABLES

Table 1. Total Maximum Daily Load (Sum of CBOD, NBOD, and SOD).....	iii
Table 2. Land Uses in Segment 120503	1
Table 3. Water Quality Numerical Criteria and Designated Uses	4
Table 4. Total Maximum Daily Load (Sum of CBOD, NBOD, and SOD).....	20
Table 5. Summary of Calibration Model Sensitivity Analysis	21

LIST OF FIGURES

Figure 1. Vector Diagram	2
Figure 2. Map of Study Area	3
Figure 3. Calibration Model Dissolved Oxygen versus River Kilometer.....	11
Figure 4. Summer Projection at 75% Removal of Man-Made NPS Loads	17
Figure 5. Winter Projection at 75% Removal of Man-Made NPS Loads.....	18

Introduction

Bayou Petit Caillou, subsegment 120503, of the Terrebonne Basin is listed on the 1999, 2002, and 2004 303(d) list. The subsegment is listed as not supporting fish and wildlife propagation and shellfish propagation. It is, however, meeting its designated use of Primary and Secondary Contact Recreation. The suspected causes of impairment are low DO, nutrients, and fecal coliform. The suspected sources are drought related sources, various unknown sources, on site treatment systems, package plants, other permitted small flow discharges, and total retention domestic sewage lagoons. Because of the impairment, this subsegment requires the development of a total maximum daily load (TMDL) for oxygen demand substances and nutrients. A calibrated water quality model for the Bayou Petit Caillou, subsegment 120503 watershed was developed and projections for current dissolved oxygen standards were run to quantify the wasteload required to meet established dissolved oxygen criteria. This report presents the model development and results.

2. Study Area Description

2.1 General Information

Terrebonne Basin

The Terrebonne Basin covers an area extending approximately 120 miles from the Mississippi River on the north to the Gulf of Mexico on the south. It varies in width from 18 miles to 70 miles. This basin is bounded on the west by the Atchafalaya River Basin and on the east by the Mississippi River and Bayou LaFourche. The topography of the entire basin is lowland, and all the land is subject to flooding except the natural levees along major waterways. The coastal portion of the basin is prone to tidal flooding and consists of marshes ranging from fresh to saline. (LA DEQ, 1996)

Subsegment 120503 includes Bayou Petit Caillou from Bayou Terrebonne to the Klondyke Road Bridge. This subsegment is tidally influenced. Water flows in either direction depending upon tides and wind conditions. This area is typical of the basin and is primarily comprised of agriculture and wetlands as documented in Table 2 (LADEQ, 1999). A detailed land cover map of Subsegment 120503 is also included in Appendix F. Average annual precipitation in the segment, based on the nearest Louisiana Climatic Station, is 64 inches based on a 30-year period of record (LSU, 1999). There is a Louisiana average annual precipitation map located in Appendix F.

Table 2. Land Uses in Segment 120503

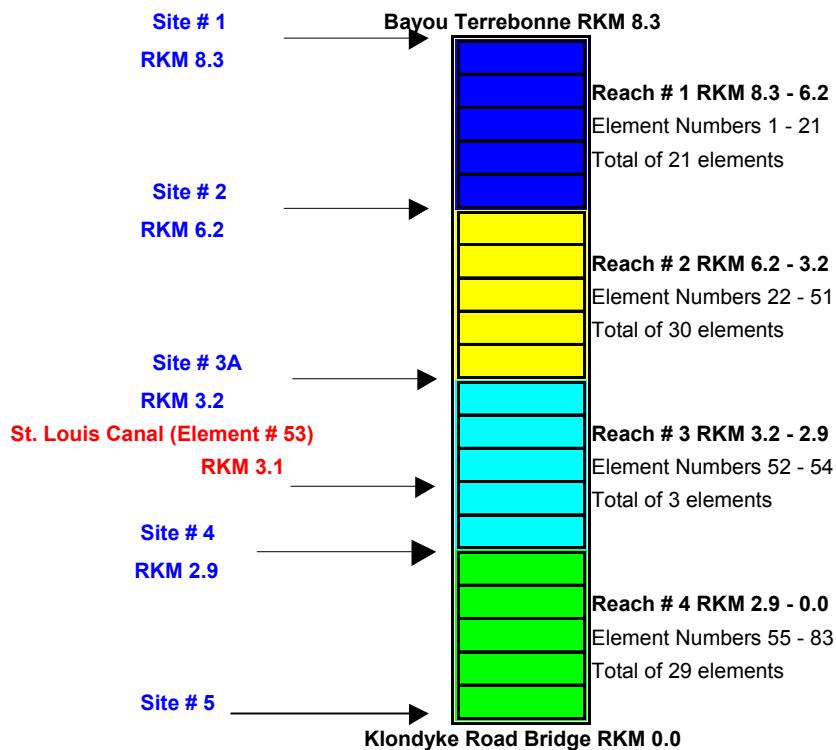
Land Type	Acres 120503	Percent Land use 120503
Agriculture/Cropland/Grassland	1320.36	42.27
Wetland Forest Deciduous	896.69	28.70
Vegetated Urban	721.23	23.09
Water	176.36	5.65
Upland S/S Mixed	6.00	0.19
Non-Vegetated Urban	3.11	0.10
Upland Forest Mixed	0.22	0.01

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Figure 1. Model Layout

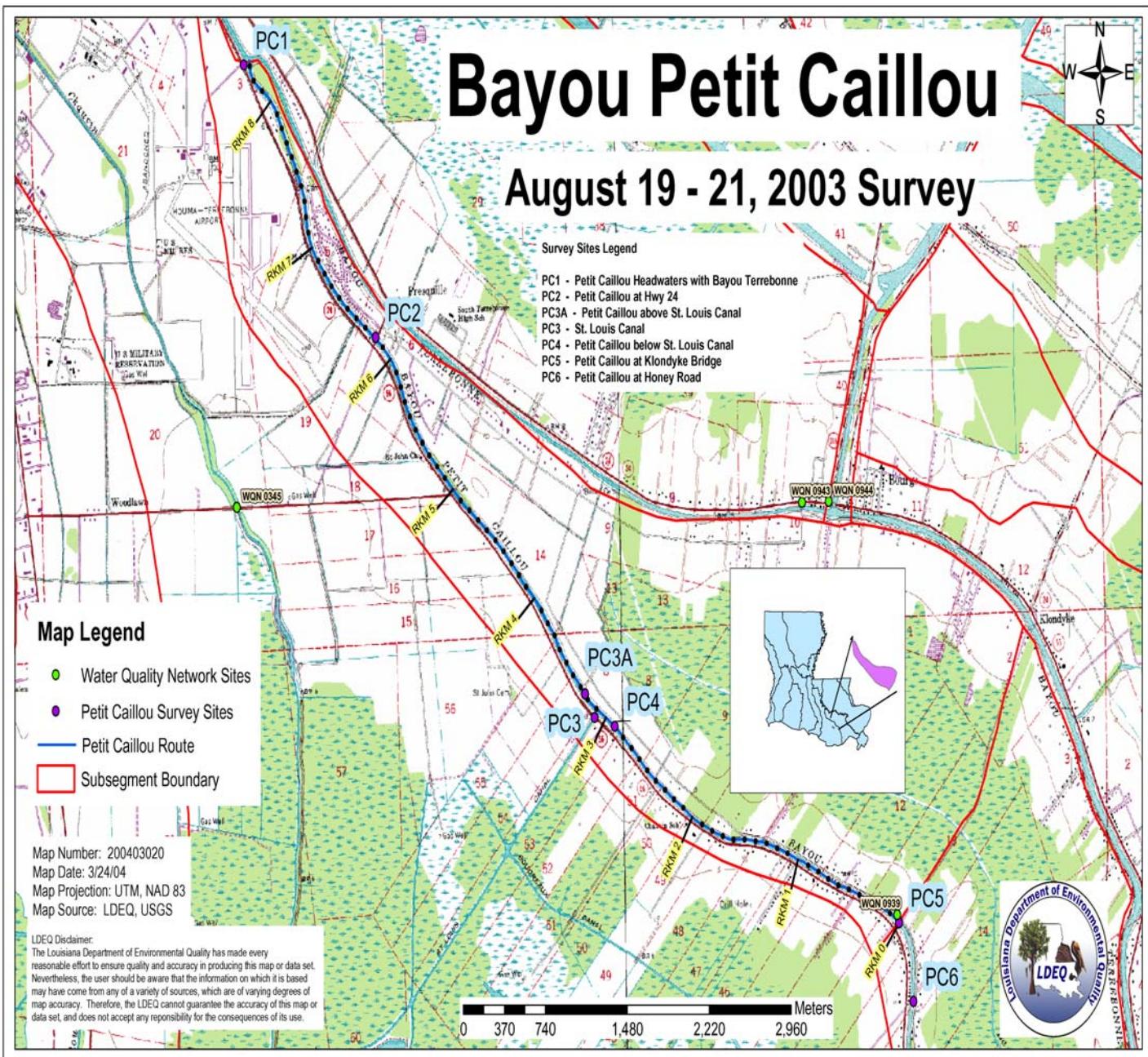
Bayou Petit Caillou Model Layout

Subsegment 120503



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Figure 2. Map of Study Area



2.2 Water Quality Standards

The Water Quality criteria and designated uses for Bayou Petit Caillou Watershed are shown in Table 3. As noted in the table, Bayou Petit Caillou, Subsegment 120503 has a year round dissolved oxygen standard of 5.0 mg/L.

Table 3. Water Quality Numerical Criteria and Designated Uses

Parameter	Value
Designated Uses	A B C E
DO, mg/L	5.0
Cl, mg/L	500
SO ₄ , mg/L	150
pH	6.0 – 9.0
BAC	4
Temperature, deg Celsius	32
TDS, mg/L	1,000

USES: A – primary contact recreation; B - secondary contact recreation; C – propagation of fish and wildlife; D – drinking water supply; E – oyster propagation; F – agriculture; G – outstanding natural resource water; L – limited aquatic life and wildlife use.

Note 1 – 200 colonies/100mL maximum log mean and no more than 25% of samples exceeding 400 colonies/100mL for the period May through October; 1,000 colonies/100mL maximum log mean and no more than 25% of samples exceeding 2,000 colonies/100mL for the period November through April.

2.3 Wastewater Discharges

No facilities/dischargers were found to be discharging into this subsegment; therefore, there is no wasteload allocation for current discharges. A 10% reserve is included in the TMDL for future wasteload allocation.

2.4 Water Quality Conditions/Assessment

Bayou Petit Caillou, subsegment 120503, of the Terrebonne Basin is listed on the 1999, 2002, and 2004 303(d) list. This subsegment is listed as not supporting fish and wildlife propagation and shellfish propagation. It is, however, meeting its designated use of Primary and Secondary Contact Recreation. The suspected causes of impairment in subsegment 120503 are DO, Nutrients, and Fecal Coliform. The suspected sources for 120503 are drought related sources, various unknown sources, on site treatment systems, package plants, other permitted small flows discharges, and total retention domestic sewage lagoons. Because of the impairment, this subsegment requires the development of a total maximum daily load (TMDL) for oxygen demanding substances and nutrients.

2.5 Prior Studies

LDEQ had a monthly water quality sampling station on Bayou Petit Caillou. LDEQ Water Quality Site 939 has a period of record from January 2000 to December 2000. Data collected during the Eulerian survey conducted in August 2003, included discharge data, cross-section data, field in-situ data, continuous monitor data, and lab water quality data. This data was used to establish the input for the model calibration and is presented in Appendix C.

3. Documentation Calibration Model

3.1 Program Description

“Simulation models are used extensively in water quality planning and pollution control. Models are applied to answer a variety of questions, support watershed planning and analysis and develop total maximum daily loads (TMDLs). . . . Receiving water models simulate the movement and transformation of pollutants through lakes, streams, rivers, estuaries, or near shore ocean areas. . . . Receiving water models are used to examine the interactions between loadings and response, evaluate loading capacities (LCs), and test various loading scenarios. . . . A fundamental concept for the analysis of receiving waterbody response to point and nonpoint source inputs is the principle of mass balance (or continuity). Receiving water models typically develop a mass balance for one or more constituents, taking into account three factors: transport through the system, reactions within the system, and inputs into the system.” (EPA841-b-97-006, pp. 1-30)

The model used for this TMDL was LA-QUAL, a steady-state one-dimensional water quality model. LA-QUAL history dates back to the QUAL-I model developed by the Texas Water Development Board with Frank D. Masch & Associates in 1970 and 1971. William A. White wrote a original code.

In June, 1972, the United States Environmental Protection Agency awarded Water Resources Engineers, Inc. (now Camp Dresser & McKee) a contract to modify QUAL-I for application to the Chattahoochee-Flint River, the Upper Mississippi River, the Iowa-Cedar River, and the Santee River. The modified version of QUAL-I was known as QUAL-II.

Over the next three years, several versions of the model evolved in response to specific client needs. In March, 1976, the Southeast Michigan Council of Governments (SEMCOG) contracted with Water Resources Engineers, Inc. to make further modifications and to combine the best features of the existing versions of QUAL-II into a single model. That became known as the QUAL-II/ SEMCOG version.

Between 1978 and 1984, Bruce L. Wiland with the Texas Department of Water Resources modified QUAL-II for application to the Houston Ship Channel estuarine system. Numerous modifications were made to enable modeling this very large and complex system including the addition of tidal dispersion, lower boundary conditions, nitrification inhibition, sensitivity analysis capability,

branching tributaries, and various input/output changes. This model became known as QUAL-TX and was subsequently applied to streams throughout the State of Texas.

In 1999, the Louisiana Department of Environmental Quality and Wiland Consulting, Inc. developed LA-QUAL based on QUAL-TX Version 3.4. The program was converted from a DOS-based program to a Windows-based program with a graphical interface and enhanced graphic output. Other program modifications specific to the needs of Louisiana and the Louisiana DEQ were also made. LA-QUAL is a user-oriented model and is intended to provide the basis for evaluating total maximum daily loads in the State of Louisiana.

The development of a TMDL for dissolved oxygen generally occurs in 3 stages. Stage 1 encompasses the data collection activities. These activities may include gathering such information as stream cross-sections, stream flow, stream water chemistry, stream temperature and dissolved oxygen and various locations on the stream, location of the stream centerline and the boundaries of the watershed which drains into the stream, and other physical and chemical factors which are associated with the stream. Additional data gathering activities include gathering all available information on each facility which discharges pollutants in to the stream, gathering all available stream water quality chemistry and flow data from other agencies and groups, gathering population statistics for the watershed to assist in developing projections of future loadings to the water body, land use and crop rotation data where available, and any other information which may have some bearing on the quality of the waters within the watershed. During Stage 1, any data available from reference or least impacted streams which can be used to gauge the relative health of the watershed is also collected.

Stage 2 involves organizing all of this data into one or more useable forms from which the input data required by the model can be obtained or derived. Water quality samples, field measurements, and historical data must be analyzed and statistically evaluated in order to determine a set of conditions which have actually been measured in the watershed. The findings are then input to the model. Best professional judgment is used to determine initial estimates for parameters which were not or could not be measured in the field. These estimated variables are adjusted in sequential runs of the model until the model reproduces the field conditions which were measured. In other words, the model produces a value of dissolved oxygen, temperature, or other parameter which matches the measured value within an acceptable margin of error at the locations along the stream where the measurements were actually made. When this happens, the model is said to be calibrated to the actual stream conditions. At this point, the model should confirm that there is an impairment and give some indications of the causes of the impairment. If a second set of measurements is available for slightly different conditions, the calibrated model is run with these conditions to see if the calibration holds for both sets of data. When this happens, the model is said to be verified.

Stage 3 covers the projection modeling which results in the TMDL. The critical conditions of flow and temperature are determined for the waterbody and the maximum pollutant discharge conditions from the point sources are determined. These conditions are then substituted into the model along with any related condition changes which are required to perform worst case scenario predictions. At this point, the loadings from the point and nonpoint sources (increased by an acceptable margin of safety) are run at various levels and distributions until the model output shows that dissolved oxygen criteria are achieved. It is critical that a balanced distribution of the point and nonpoint source loads be made in

order to predict any success in future achievement of water quality standards. At the end of Stage 3, a TMDL is produced which shows the point source permit limits and the amount of reduction in man-made nonpoint source pollution which must be achieved to attain water quality standards. The man-made portion of the NPS pollution is estimated from the difference between the calibration loads and the loads observed on reference or least impacted streams.

3.2 Input Data Documentation

Data collected during an intensive survey conducted from August 19-21, 2003, was used to establish the input for the model calibration. It is presented in Appendix F. The flows in each reach and headwater were based on the measured survey discharges and extrapolated for the reaches between measurement sites.

Field and laboratory water quality data were entered in a spreadsheet for ease of analysis. Upon review of the measured CBOD daily values it became apparent that there were two distinct CBOD components, which had varying ultimate values as well as decay rates and lag times. The first component started its decay almost immediately while the second component had substantial lag times. The total CBOD curve presented in Appendix C5 is the sum of the two first order equations, which were derived using the Microsoft Excel Solver and were based on the measured daily CBOD values. These two CBOD components were modeled separately as CBOD1 and CBOD 2 in the LAQUAL model. NBOD simulated organic nitrogen, ammonia nitrogen, and nitrate/nitrite nitrogen. The Louisiana BOD program was applied to the BOD data in a separate spreadsheet and values were computed for each sample taken of ultimate CBOD1, CBOD1 decay rate, CBOD1 lag time, ultimate CBOD2, CBOD2 decay rate, and CBOD2 lag time as well as the NBOD, NBOD decay rate, and NBOD lag time. The survey data was the primary source of the model input data for initial conditions, decay rates, mainstem water temperature, dissolved oxygen loading, headwater temperature, and DO data.

3.2.1 Model Schematics and Maps

A vector diagram of the modeled area is presented in Figure 1 and Appendix 1. The vector diagram shows the locations of survey stations, the reach/element design, and the locations of the tributary contributing flow but not modeled. An ARCVIEW map of the stream and subsegment showing river kilometers, survey stations, subsegment boundary and other points of interest are also included in Figure 2 and Appendix F.

3.2.2 Model Options, Data Type 2

Six constituents were modeled during the calibration process. These were dissolved oxygen, carbonaceous biochemical oxygen demand components 1 and 2, nitrogenous biochemical oxygen demand, chloride, and conductivity. The continuous monitors did show small diurnal swings indicative of algal activity. The algae cycle was not modeled; however, the measured chlorophyll A values were included in the initial conditions. This allowed the model to simulate the oxygen production associated with algae without modeling the entire algal cycle. A review of the data showed that field conductivity was probably more reliable as a conservative constituent for this watershed.

3.2.3 Temperature Correction of Kinetics, Data Type 4

The temperature values computed are used to correct the rate coefficients in the source/sink terms for the other water quality variables. These coefficients are input at 20 °C and are then corrected to temperature using the following equation:

$$X_T = X_{20} * \Theta^{(T-20)}$$

Where:

X_T = the value of the coefficient at the local temperature T in degrees Celsius

X_{20} = the value of the coefficient at the standard temperature at 20 degrees Celsius

Θ = an empirical constant for each reaction coefficient

In the absence of specified values for data type 4, the model uses default values. A complete listing of these values can be found in the LA-QUAL for Windows User's Manual (LDEQ, 2004). For this model all values used were LAQUAL default values.

3.2.4 Reach Identification Data, Data Type 8

A diagram of the modeled area is presented in Appendix A. The vector diagram shows the reach/element design and the location of the St. Louis Canal tributary. The modeled area is characterized by 7 sample sites. The model starts with Bayou Petit Caillou's headwaters with the Terrebonne and extends to the Klondyke Bridge. This calibrated model includes 4 reaches, 83 elements, one headwater, and one tributary. A digitized map of the stream showing river kilometers, and the August 2003 survey sampling sites are included in Figure 2 and Appendix F.

3.2.5 Advection Hydraulic Coefficients, Data Type 9

The water levels on Bayou Petit Caillou are controlled by tides, therefore width and depths were assumed to be independent of flow. Consequently, the coefficients and exponents were not calculated for this model.

A dispersion coefficient was calculated for this model because Bayou Petit Caillou is tidally influenced. This calculated coefficient was derived from a dye study conducted during the survey. This documentation is located in Appendix C6.

3.2.6 Initial Conditions, Data Type 11

The initial conditions are used to reduce the number of iterations required by the model. The values required for this model were temperature and DO by reach. The input values came from the survey station located closest to the reach. Chlorophyll a values were also used since the mild effects of algae on the dissolved oxygen concentrations were also simulated with this model. Since the initial

conditions are only a starting point for the model, all values were set to the calibration values. The input data and sources are shown in Appendix C.

3.2.7 Reaeration Rates, Data Type 12

The applicability of the various equations was examined. The review showed that the Texas Equation was most applicable to Bayou Petit Caillou with its variation in depths. The input data and sources are shown in Appendix C.

3.2.8 Sediment Oxygen Demand, Data Type 12

The SOD values were achieved through calibration. The SOD value for each reach is shown in Appendix B. The values were considered to be reasonable for this type of stream. The conversion ratio of settled CBOD and settled NBOD to SOD was considered to be one for all reaches.

3.2.9 Carbonaceous BOD Decay and Settling Rates, Data Type 12

The decay rates used were based on the bottle rates from the survey. Review of the measured CBOD daily values revealed two distinct CBOD components, which had varying decay rates and lag times. The first component started its decay almost immediately with decay rates ranging from 0.13 to 0.29 per day. The second component had substantial lag times ranging from 9.4 to 23.1 days and decay rates from 0.01 to 0.03 per day. The total CBOD curves presented in Appendix C are the sum of the two first order equations, which were derived using the Microsoft Excel Solver and were based on the measured daily CBOD values. These two components were modeled separately as CBOD1 and CBOD2 in the LAQUAL model. The decay and settling rates used for each reach are shown in Appendix C5.

3.2.10 Nitrogenous BOD Decay and Settling Rates, Data Type 15

These rates are labeled NBOD Decay and Settling in the model. The decay rates used were based on the bottle rates from the survey. NBOD decay rates were fairly consistent with main stem rates ranging from 0.08 to 0.20. The decay and settling rates used for each reach are shown in Appendix C5.

3.2.11 Incremental Conditions, Data Types 16, 17, and 18

The incremental conditions were used in the calibration to represent nonpoint source loads associated with flows. It was determined from the flow measurements along the mainstem and an evaluation of the water chemistry that groundwater inflow could be assumed. The data and its source for each reach are presented in Appendix C2.

3.2.12 Nonpoint Sources, Data Type 19

Nonpoint source loads which are not associated with a flow are input into this part of the model. These can be most easily understood as resuspended load from the bottom sediments and are modeled as SOD, CBOD1, CBOD2, and NBOD loads. The data and sources are presented in Appendix B.

3.2.13 Headwaters, Data Types 20, 21, and 22

The headwater flow was determined from the measurements obtained during the August 2003 survey. The hydrology used for the headwater was from Site 2 because the hydrology was taken within the mixing zone with Bayou Terrebonne and was not representative of Bayou Petit Caillou. The Site 1 water quality data was used because it was representative of the headwater conditions. The data and sources are presented in Appendix C2.

3.2.14 Wasteloads, Data Types 23, 24, and 25

A facility review was performed on the subsegment and no permitted dischargers were found for subsegment 120503. Only St. Louis Canal was found to be flowing during the water quality survey and was added to the calibration.

3.2.15 Boundary Conditions, Data Type 27

Dispersion was included in the model, therefore lower boundary conditions were included as well. The lower boundary conditions were assumed to be equivalent to the measurements taken at survey station PC6 (Bayou Petit Caillou at Honey Lane).

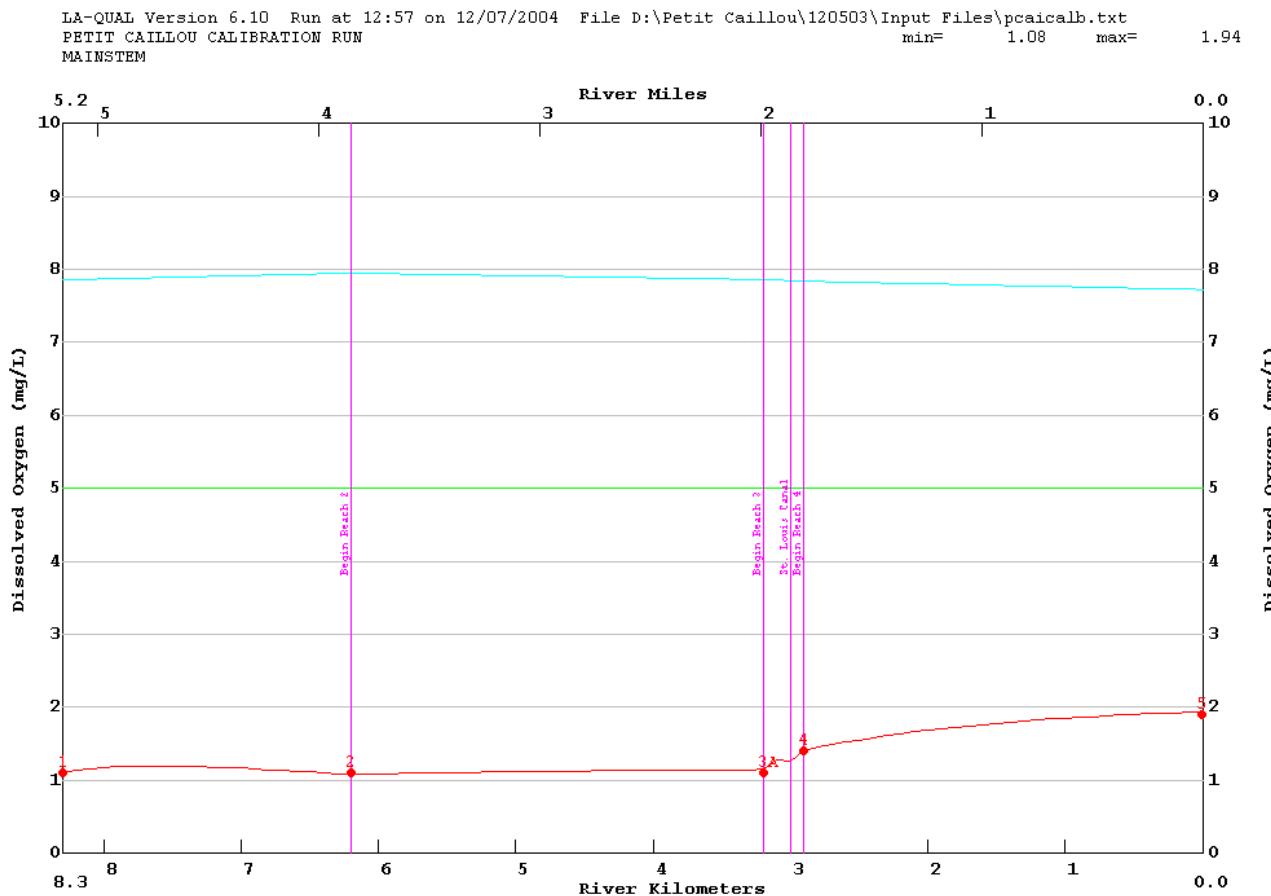
3.3 Model Discussion and Results

The calibration model input and output is presented in Appendix B. The overlay plotting option was used to determine if calibration had been achieved. A plot of the dissolved oxygen concentration versus river kilometer is presented in Figure 3. The sites chosen for each reach were a representative cross section of that reach. The water levels on Bayou Petit Caillou are controlled by tides, therefore width and depths were assumed to be independent of flow. Consequently, the coefficients and exponents were not calculated for this model. The headwater value used was the measurement taken at PC2. The incremental inflow was determined to be the difference between the measurements of PC2 and PC3A. The flow from St. Louis Canal was determined to be the difference between the measurements of PC3A and PC4.

The calibration points for dissolved oxygen were calculated based on an approach adapted for calibration to a wide variation of dissolved oxygen. Those sites that had a DO cycle with a minimum and maximum differential of 2 mg/L or more were calibrated to 1 mg/L over minimum DO. This option is based upon the theoretical consideration of production and respiration rates due to algal production. The calibration points for temperature were calculated based on the mean during the 24 hour period for which the water quality sample was taken wherever possible. The calibration points for CBOD1, CBOD2, and NBOD were the measured values from the water quality samples.

An adequate calibration was achieved for DO, UCBOD1, UCBOD2, and NBOD on the main stem. The calibration model shows that during August 2003 survey period, the DO standard of 5 mg/l was not being met in subsegment 120503 in any of the modeled reaches. The calibration model minimum DO on the main stem was 1.08 mg/l.

Figure 3. Calibration Model Dissolved Oxygen versus River Kilometer



- numbered points indicate survey stations
- vertical lines indicate beginning of reach
- the horizontal line indicates the DO Criterion
- upper plotted line indicates DO saturation
- lower plotted line indicates calibration model output

4. Water Quality Projections

The traditional summer critical projection loading scenario was performed at the current annual DO standard. This scenario was based on reduced total nonpoint loads at summer season critical conditions (ie. 90th percentile seasonal temperatures and 7Q10 flows) in accordance with the LTP. A

winter projection was run based on the percent reduction of total nonpoint loads used for summer critical projections.

4.1 Critical Conditions, Seasonality and Margin of Safety

The Clean Water Act requires the consideration of seasonal variation of conditions affecting the constituent of concern, and the inclusion of a margin of safety (MOS) in the development of a TMDL. For the Bayou Petit Caillou, subsegment 120503 TMDL, an analysis of LDEQ ambient data has been employed to determine critical seasonal conditions and an appropriate margin of safety.

Critical conditions for dissolved oxygen were determined for Bayou Petit Caillou using short term water quality data from Bayou Petit Caillou water quality site number 939 on the LDEQ Ambient Monitoring Network. The 90th percentile temperature for each season and the corresponding 90% of saturation DO was determined. Ambient temperature data, critical temperature and DO saturation determinations are shown in Appendix D1.

Graphical and regression analysis techniques have been used by LDEQ historically to evaluate the temperature and dissolved oxygen data from the Ambient Monitoring Network and run-off determinations from the Louisiana Office of Climatology water budget. Since nonpoint loading is conveyed by run-off, this was a reasonable correlation to use. Temperature is strongly inversely proportional to dissolved oxygen and moderately inversely proportional to run-off. Dissolved oxygen and run-off are also moderately directly proportional. The analysis concluded that the critical conditions for stream dissolved oxygen concentrations were those of negligible nonpoint run-off and low stream flow combined with high stream temperature.

When the rainfall run-off (and non-point loading) and stream flow are high, turbulence is higher due to the higher flow and the temperature is lowered by the run-off. In addition, run-off coefficients are higher in cooler weather due to reduced evaporation and evapotranspiration, so that the high flow periods of the year tend to be the cooler periods. Reaeration rates and DO saturation are, of course, much higher when water temperatures are cooler, but BOD decay rates are much lower. For these reasons, periods of high loading are periods of higher reaeration and dissolved oxygen but not necessarily periods of high BOD decay.

This phenomenon is interpreted in TMDL modeling by assuming that nonpoint loading associated with flows into the stream are responsible for the benthic blanket which accumulates on the stream bottom and that the accumulated benthic blanket of the stream, expressed as SOD and/or resuspended BOD in the calibration model, has reached steady state or normal conditions over the long term and that short term additions to the blanket are offset by short term losses. This accumulated loading has its greatest impact on the stream during periods of higher temperature and lower flow. The manmade portion of the NPS loading is the difference between the calibration load and the reference stream load where the calibration load is higher. The only mechanism for changing this normal benthic blanket condition is

to implement best management practices and reduce the amount of nonpoint source loading entering the stream and feeding the benthic blanket.

Critical season conditions were simulated in the Bayou Petit Caillou, subsegment 120503 dissolved oxygen TMDL projection modeling by using the flow guidelines from the tidal algorithm procedure, and the 90th percentile temperature. Since groundwater inflow was present during this survey, it is assumed to be present during both summer and winter conditions. In accordance with the LTP, a summer 7Q10 of 0.1 cfs = 0.00283 cms and a winter 7Q10 of 1.0 cfs = 0.0283 cms for St. Louis Canal was assumed.

In reality, the highest temperatures occur in July-August, the lowest stream flows occur in October-November, and the maximum point source discharge occurs following a significant rainfall, i.e., high-flow conditions. The summer projection model is established as if all these conditions happened at the same time. The winter projection model accounts for the seasonal differences in flows and BMP efficiencies. Other conservative assumptions regarding rates and loadings are also made during the modeling process. In addition to the conservative measures, an explicit MOS of 20% was used for all loads to account for future growth, safety, model uncertainty and data inadequacies.

4.2 Input Data Documentation

The LTP states that the flow for summer conditions should be 0.1 cfs or the 7Q10, whichever is greater. However, it also states that more appropriate critical conditions may be selected. A 7Q10 value cannot be determined for Bayou Petit Caillou because of tidal influences. Therefore, the critical flow was calculated as 1/3 of the typical flow over one tidal cycle. This is documented in Appendix C2 and is consistent with the regulations, LAC 33:IX.1115.

The flow in the St. Louis Canal was set to 0.1cfs in the summer and 1.0 cfs for winter critical conditions in accordance with the LTP.

The calibration values were retained for the remaining parameters and used as input values in the summer and winter projections. The model adjusts the input values for SOD, CBODU decay, and NBODU decay based upon the input temperature. The model projects the width and depth values based upon the streamflow.

4.2.1 Model Options, Data Type 2

Four constituents were modeled during the projection process. These were dissolved oxygen, the two components of carbonaceous biochemical oxygen demand, and nitrogenous biochemical oxygen demand.

4.2.2 Temperature Correction of Kinetics, Data Type 4

The temperature correction factors specified in the LTP are entered in the model.

4.2.3 Reach Identification Data, Data Type 8

The reach-element design from the calibration was used in the projection modeling.

4.2.4 Advective Hydraulic Coefficients, Data Type 9

The hydraulic coefficients, exponents, and constants determined for the calibration were used in the projection model.

4.2.5 Initial Conditions, Data Type 11

The initial conditions were set to the 90th percentile critical season temperature in accordance with the LTP. The dissolved oxygen values for the initial conditions were set at the stream criteria.

4.2.6 Reaeration Rates, Carbonaceous BOD Decay and Settling Rates, Nitrogenous BOD Decay and Settling Rates, Data Type 12 and 15

The reaeration rate equations, CBOD1 and CBOD2 decay and settling rates, NBOD decay and settling rates, and the fractions converting settled CBOD and settled NBOD to SOD were not changed from the calibration.

4.2.7 Incremental Conditions, Data Types 16, 17, and 18

The incremental conditions were used in the calibration to represent nonpoint source loads associated with flows. Since incremental flow was determined to be groundwater inflow, the incremental flows were assumed to be present during projections and were included. The DO was set to 2.0 which is an acceptable value for groundwater inflow.

4.2.8 Sediment Oxygen Demand, Nonpoint Sources, Headwaters, Wasteloads, Data Type 12, 19, 20, 21, 22, 24, 25, and 26

The NPS values were calculated for each projection scenario using a load equivalent spreadsheet. An analysis was made of the calibration NPS and SOD loads in terms of total loading in units of gm-O₂/m²/day. The same spreadsheet also calculated load reductions for the headwaters and wasteloads. The values and sources of the input data and the load analyses are presented in Appendix E for each of the projection runs.

LDEQ has collected and measured the CBOD and NBOD oxygen demand loading components for a number of years. These loads have been found in all streams including the non-impacted reference streams. It is LDEQ's opinion that much of this loading is attributable to run-off loads which are flushed into the stream during run-off events, and subsequently settle to the bottom in our slow moving streams. These benthic loads decay and breakdown during the year, becoming easily resuspended into the water column during the low flow/high temperature season. This season has historically been identified as the critical dissolved oxygen season.

LDEQ simulates part of the non-point source oxygen demand loading as resuspended benthic load and SOD. The calibrated non-point loads, UCBOD, UNBOD and SOD, are summed to produce the total calibrated benthic load. The total calibrated benthic load is then reduced by the total background benthic load (determined from LDEQ's reference stream research) to determine the total manmade benthic loading. The manmade portion is then reduced incrementally on a percentage basis to determine the necessary percentage reduction of manmade loading required to meet the water body's dissolved oxygen criteria. These reductions are applied uniformly to all reaches sharing similar hydrology and land uses.

Following the same protocol as the point source discharges, the total reduced manmade benthic load is adjusted for the margin of safety by dividing the value by one minus the margin of safety. This adjusted load is added back to the total background benthic value to obtain the total projection model benthic load. This total projection benthic load is then broken out into its components of SOD, resuspended CBOD and resuspended NBOD by multiplying the total projection benthic load by the ratio of each calibrated component to the total calibrated benthic load.

LDEQ has found variations in the breakdown of the individual CBOD and NBOD components. While the total BOD is reliable, the carbonaceous and nitrogenous component allocation is subject to the type of test method. In the past, LDEQ used a method which suppressed the nitrogenous component to obtain the carbonaceous component value, which was then subtracted from the total measured BOD to determine the nitrogenous value. The suppressant in this method was only reliable for twenty days thus leading to the assumption that the majority of the carbonaceous loading was depleted within that period of time. The test results supported this assumption. Recently the suppressant started failing around day seven and the manufacturer of the suppressant will only guarantee it's potency for a five day period. LDEQ felt a five day test would not adequately depict the water quality of streams and began a search for a new test method. The research found a new proposed method for testing long term BODs in Standard Methods.

This proposed method is a sixty day test which measures the incremental total BOD of the sample while at the same time measuring the increase in nitrite/nitrate in the sample. This increase in nitrite/nitrate allows LDEQ to calculate the incremental nitrogenous portion by multiplying the increase by 4.57 to determine the NBOD daily readings. These NBOD daily readings are then subtracted from the daily reading for total BOD to determine the CBOD daily values. A curve fit algorithm is then applied to the daily component readings to obtain the estimated ultimate values of each component as well as the decay rate and lag times of the first order equations.

LDEQ has implemented the new test method over the last two survey seasons. The results obtained using the new method showed that a portion of the CBOD first order equation does begin to level off prior to the twentieth day, however a secondary CBOD component begins to use dissolved oxygen sometime between day ten and day twenty-five. This secondary CBOD component was not being assessed as CBOD using the previous method but was being included in the NBOD load. Thus the CBOD and NBOD component loading used in the reference stream studies is not consistent with the results using the new proposed 60 day method and the individual values should not be used to determine background values for samples processed using the new test methods. However, the sum of

CBOD and NBOD should be about the same for both new and old test methods. For this reason LDEQ decided to use the sum of reference stream benthic loads as background values.

The resuspended total nonpoint CBOD1, CBOD2, and NBOD loading was reduced by 75% for all reaches in the summer critical projection scenario to meet the summer water quality criterion for dissolved oxygen. Since LDEQ assumes these benthic loads are long-term loads brought to the stream by various sources throughout the year, the same percentage reductions were made in the winter projection model as were in the summer critical projection model. These reductions met the summer dissolved oxygen criteria and well surpassed requirements in the non-critical winter projection.

The reductions were determined using the calibrated values for nonpoint CBOD1, CBOD2, and NBOD. These values were summed by reach, as justified above and adjusted for the margin of safety. Each reach's total benthic nonpoint load was then reduced to meet the dissolved oxygen criteria in each reach. Using the ratios determined in calibration, this reduced total nonpoint load was then broken into its components of CBOD1, CBOD2, NBOD, and SOD. The percentage reduction within the mainstem was calculated based on the comparison of the reduced total nonpoint benthic load to the calibration total nonpoint benthic load. These calculations are shown in Appendix E. The value and sources of CBOD1, CBOD2, and NBOD for each projection run are presented in Appendix B.

4.2.12 Boundary Conditions, Data Type 27

The lower boundary conditions were set at the 90th percentile critical season temperature, the dissolved oxygen criteria were set to the DO standard, and the measured stream UCBOD and UNBOD loads for all projections and scenarios.

4.3 Model Discussion and Results

The projection model input and output data sets are presented in Appendix B.

4.3.2 Summer Projection

Summer critical season projections were run for the current standard of 5.0 mg/L May – November. In order to meet the standard, a 75% reduction of total nonpoint sources is necessary. With these percentage reductions in the benthic oxygen loads, Bayou Petit Caillou meets the dissolved oxygen criterion. The minimum DO on the main stem is 5.22 mg/L. A graph of the dissolved oxygen concentration versus river kilometer for the summer projection is presented in Figure 4.

Bayou Petit Caillou Watershed TMDL

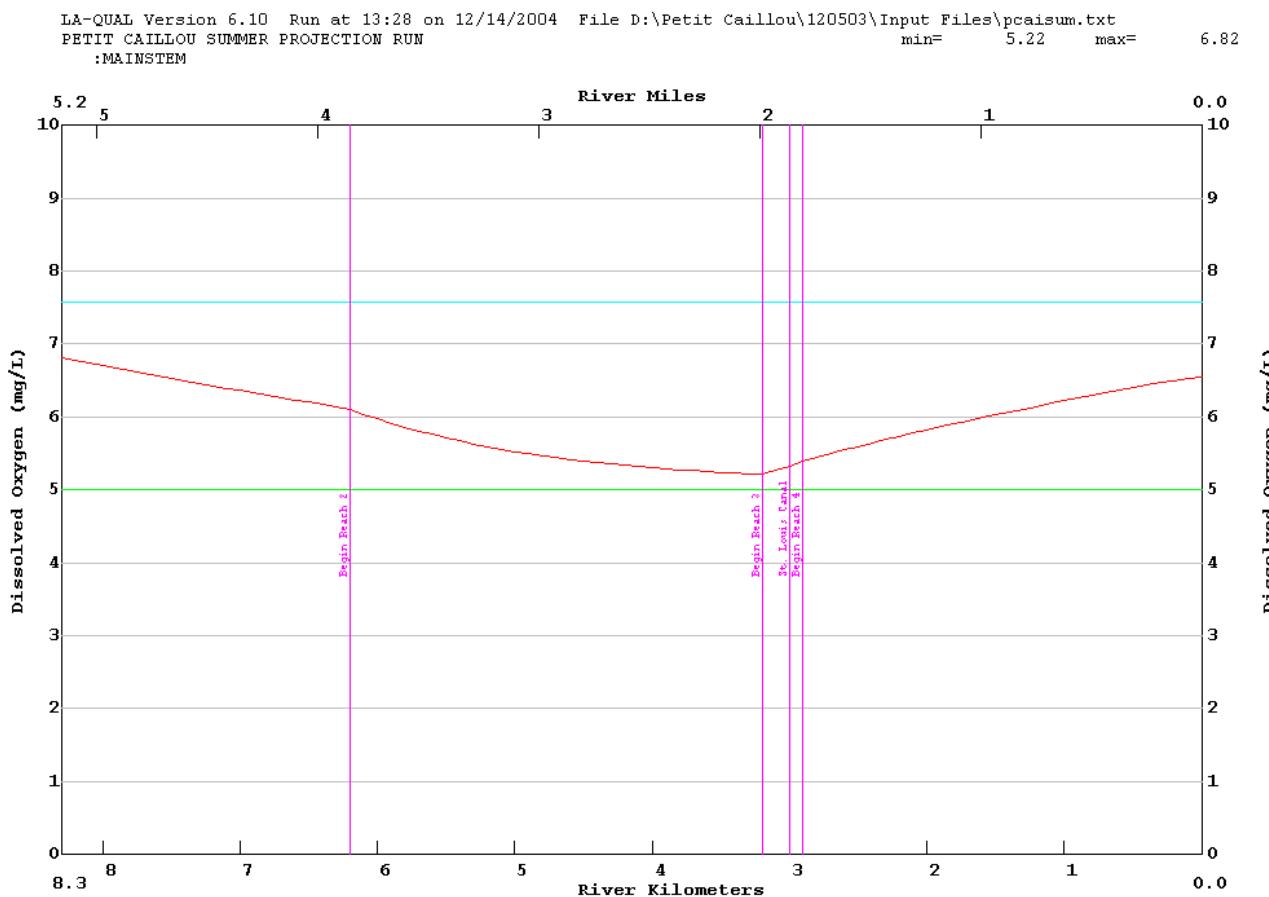
Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Figure 4. Summer Projection at 75% Removal of Man-Made NPS Loads

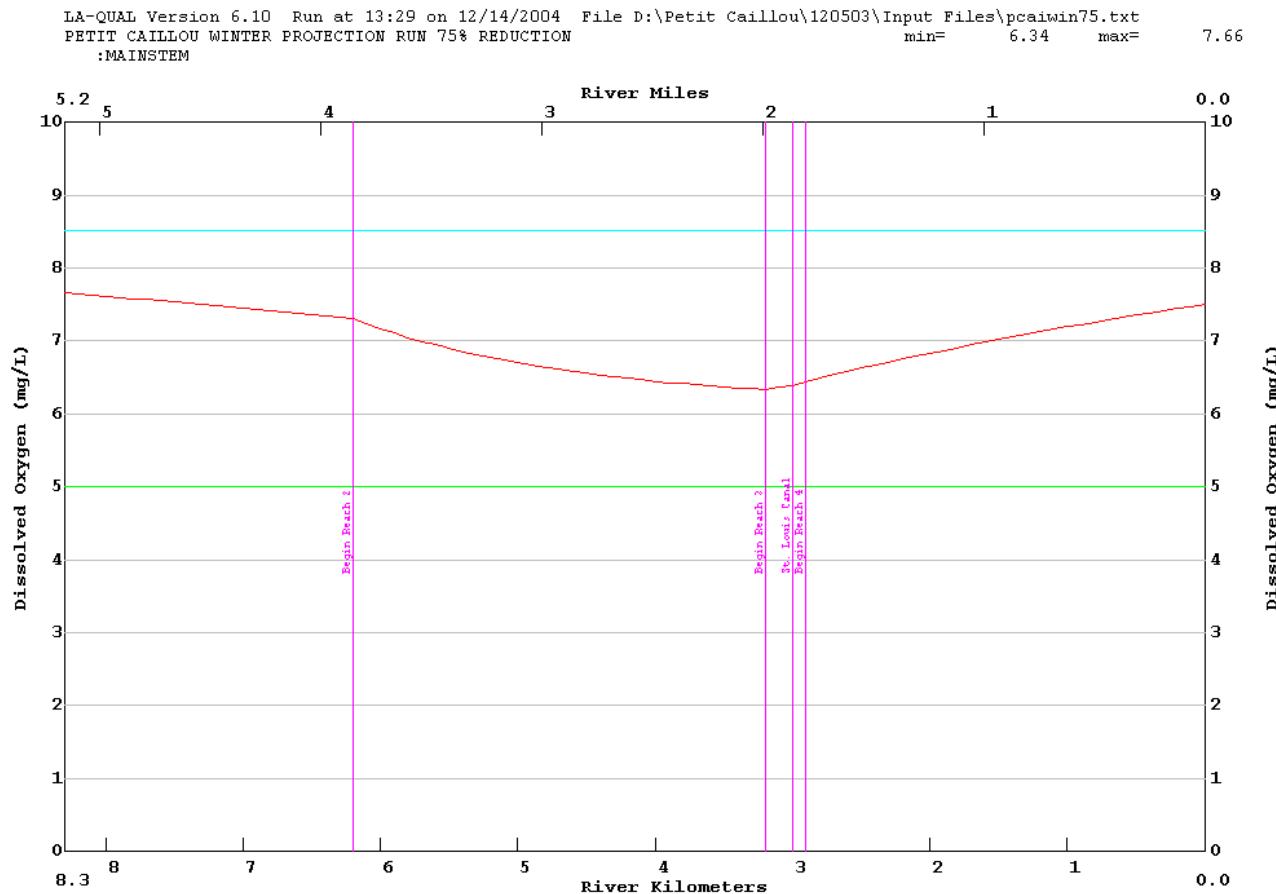


4.3.3 Winter Projection

The results of the model show that the water quality criterion for dissolved oxygen of Bayou Petit Caillou of 5.0 mg/l can be maintained during the winter critical season. The minimum dissolved oxygen is 6.34 mg/l. This is acceptable. To achieve the criterion, the model assumed a 75% reduction from all manmade nonpoint sources. A graph of the dissolved oxygen concentration versus river kilometer for the winter projection is presented in Figure 5.

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Figure 5. Winter Projection at 75% Removal of Man-Made NPS Loads



4.4 Calculated TMDL, WLAs and Las

4.4.1 Outline of TMDL Calculations

An outline of the TMDL calculations is provided to assist in understanding the calculations in the Appendices. Slight variances may occur based on individual cases.

4.4.1.1 The natural backgrounds benthic loading was estimated from reference stream resuspension (nonpoint CBOD and NBOD), and SOD load data.

4.4.1.2 The calibration man-made benthic loading was determined as follows:

- Calibration resuspension and SOD loads were summed for each reach as gm O₂/m²-day to get the calibration benthic loading.

- The natural background benthic loading was subtracted from the calibration benthic loading to obtain the man-made calibration benthic loading.

4.4.1.3 Projection benthic loads are determined by trial and error during the modeling process using a uniform percent reduction for resuspension and SOD. Point sources are reduced as necessary to subsequently more stringent levels of treatment consistent with the size of the treatment facility as much as possible. Point source design flows are increased to obtain an explicit MOS of 20%. Headwater and tributary concentrations of CBOD, NBOD and DO range from reference stream levels to calibration levels based on the character of the headwater. Where headwaters and tributaries exhibit man-made pollutant loads in excess of reference stream values, the loadings are reduced by the same uniform percent reduction as the benthic loads.

- The projection benthic loading at 20 °C is calculated as the sum of the projection resuspension and SOD components expressed as gm O₂/m²-day.
- The natural background benthic load is subtracted from the projection benthic load to obtain the man-made projection benthic load for each reach.
- The percent reduction of man-made loads for each reach is determined from the difference between the projected man-made non-point load and the man-made non-point load found during calibration.
- The projection loads are also computed in units of lb/d and kg/d for each kind.

4.4.1.4 The total stream loading capacity at critical water temperature is calculated as the sum of:

- Headwater and tributary CBOD and NBOD loading in lb/d and kg/d.
- The natural and man-made projection benthic loading for all reaches of the stream is converted to the loading at critical temperature and summed in lb/d and kg/d.
- Point source CBOD and NBOD loading in lb/d and kg/d.
- The margin of safety in lb/d and kg/d.

4.4.2 Bayou Petit Caillou, Subsegment 120503 TMDL

The TMDLs for the biochemical oxygen demanding constituents (CBOD1, CBOD2, NBOD, and SOD), have been calculated for the summer and winter critical seasons. The TMDLs for the Bayou Petit Caillou, Subsegment 120503 watershed were set equal to the total stream loading capacity. They are presented in Appendix A by reach. A summary of the loads is presented in Table 4.

Table 4. Total Maximum Daily Load (Sum of UCBOD¹, UNBOD, and SOD)

LOCATION	Summer	Winter
	May – Oct (lbs/day)	Nov - Apr (lbs/day)
Total Nonpoint Source LA	1,674	1,340
Future Growth Reserve (10%)	208	168
MOS (10%)	208	167
TMDL	2,090	1,675
Total Nonpoint Reduction	75%	75%

***Note1: UCBOD as stated in this allocation is Ultimate CBOD.

UCBOD to CBOD₅ ratio = 2.3 for all treatment levels

Permit allocations are generally based on CBOD₅***

5. Sensitivity Analysis

All modeling studies necessarily involve uncertainty and some degree of approximation. It is therefore of value to consider the sensitivity of the model output to changes in model coefficients, and in the hypothesized relationships among the parameters of the model. The LAQUAL model allows multiple parameters to be varied with a single run. The model adjusts each parameter up or down by the percentage given in the input set. The rest of the parameters listed in the sensitivity section are held at their original projection value. Thus the sensitivity of each parameter is reviewed separately. A sensitivity analysis was performed on the calibration. The sensitivity of the model's minimum DO projections to these parameters is presented in Appendix A6. Parameters were varied by +/- 30%, except temperature, which was adjusted +/- 2 degrees Centigrade.

As shown in Table 5, Initial Temperature, BOD Decay Rate, Benthal Demand, Stream Reaeration, and Headwater DO are the parameters to which the model is most sensitive. The model is moderately sensitive to Stream Baseflow, Initial Chlorophyll A, Headwater Flow, and Headwater BOD. The model is slightly sensitive to insensitive to the remaining parameters.

Table 5. Summary of Calibration Model Sensitivity Analysis

Parameter	Positive Changes in Parameter			Negative Changes in parameter		
	% change	Minimum DO (mg/l)	Percentage Difference	% change	Minimum DO (mg/l)	Percentage Difference
Stream Baseflow	30	1.1	1.5	-30	0.98	-9.5
Initial Chlorophyll a	30	1.1	1.5	-30	0.99	-8.5
Stream Velocity	30	1.06	-2.2	-30	1.1	1.5
Initial Temperature	2	0.68	-37.5	-2	1.1	1.5
BOD Decay Rate	30	0.95	-12.0	-30	1.1	1.5
BOD2 Aerobic Decay Rate	30	1.07	-1.4	-30	1.09	1.0
BOD Settling Rate	30	1.1	1.5	-30	1.05	-2.7
BOD2 Settling Rate	30	1.08	0	-30	1.08	0
NBOD Decay Rate	30	1.08	-0.5	-30	1.09	0.2
NBOD Settling Rate	30	1.08	-0.2	-30	1.08	-0.1
Benthal Demand	30	0.12	-89.1	-30	1.1	1.5
Stream Dispersion	30	1.08	0	-30	1.08	0
Stream Reaeration	30	1.1	1.5	-30	0	-100
Headwater Flow	30	1.1	1.5	-30	0.98	-9.3
Headwater DO	30	1.1	1.5	-30	0.84	-22.6
Headwater BOD	30	1.03	-5.2	-30	1.1	1.5
Headwater BOD2	30	1.07	-1.1	-30	1.1	1.2
Headwater NBOD	30	1.08	-0.4	-30	1.09	0.4
Stream Depth	30	1.05	-3.2	-30	1.1	1.5
Incremental Inflow	30	1.08	0.1	-30	1.08	-0.3
Incremental Outflow	30	1.08	0	-30	1.08	0
Incremental Temperature	2	1.08	0	-2	1.08	0
Incremental DO	30	1.08	0.1	-30	1.06	-2.4
Incremental BOD	30	1.08	0	-30	1.08	-0.3
Incremental BOD2	30	1.08	0	-30	1.08	0
Incremental NBOD	30	1.08	0	-30	1.08	0
Wasteload Flow	30	1.08	0	-30	1.08	0
Wasteload Temperature	2	1.08	0	-2	1.08	0
Wasteload DO	30	1.08	0	-30	1.08	0
Wasteload BOD	30	1.08	0	-30	1.08	0
Wasteload BOD2	30	1.08	0	-30	1.08	0
Wasteload NBOD	30	1.08	0	-30	1.08	0
Lower Boundary Temperature	2	1.08	0	-2	1.08	0
Lower Boundary DO	30	1.08	0	-30	1.08	0
Lower Boundary BOD	30	1.08	0	-30	1.08	0
Lower Boundary BOD2	30	1.08	0	-30	1.08	0
Lower Boundary NBOD	30	0.97	0	-30	1.08	0

6. Conclusions

This TMDL establishes load limitations for oxygen-demanding substances and goals for reduction of those pollutants. LDEQ's position, as supported by the declaratory ruling issued by Secretary Givens in response to the lawsuit regarding water quality criteria for nutrients (*Sierra Club v. Givens*, 710 So.2d 249 (La. App. 1st Cir. 1997), writ denied, 705 So.2d 1106 (La. 1998)), is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also control and reduce the nutrient loading from those sources.

A calibrated water quality model for the watershed was developed and projections were modeled to quantify the non-point source load reductions which would be necessary in order for Bayou Petit Caillou, subsegment 120503 to comply with its established water quality standards and criteria. This report presents the results of that analysis.

The modeling, which has been conducted for this TMDL, is conservative and based on limited information. The TMDL requires a watershed-wide 75% decrease in total nonpoint source loads in order to meet the DO criterion of 5.0 mg/L in the summer critical season.

LDEQ has developed this TMDL to be consistent with the state antidegradation policy (LAC 33:IX.1109.A).

LDEQ will work with other agencies such as local Soil Conservation Districts to implement agricultural best management practices in the watershed through the 319 programs. LDEQ will also continue to monitor the waters to determine whether standards are being attained.

In accordance with Section 106 of the federal Clean Water Act and under the authority of the Louisiana Environmental Quality Act, the LDEQ has established a comprehensive program for monitoring the quality of the state's surface waters. The LDEQ Surveillance Section collects surface water samples at various locations, utilizing appropriate sampling methods and procedures for ensuring the quality of the data collected. The objectives of the surface water monitoring program are to determine the quality of the state's surface waters, to develop a long-term database for water quality trend analysis, and to monitor the effectiveness of pollution controls. The data obtained through the surface water monitoring program is used to develop the state's biennial 305(b) report (*Water Quality Inventory*) and the 303(d) list of impaired waters. This information is also utilized in establishing priorities for the LDEQ nonpoint source program.

The LDEQ is continuing to implement a watershed approach to surface water quality monitoring. In 2004 a four year sampling cycle replaces the previous five year cycle. Approximately one quarter of the states watersheds will be sampled each year so that all of the state's watersheds will be sampled within the four year cycle. This will allow LDEQ to determine whether there has been any improvement in water quality following implementation of the TMDLs. As the monitoring results are evaluated at the end of each year, waterbodies may be added to or removed from the 303(d) list.

7. References

Bowie, G.L., et. al. *Rates, Constants, and Kinetics Formulations in Surface Water Quality Modeling (Second Edition)*. Env. Res. Lab., USEPA, EPA/600/3-85/040. Athens, GA: 1985.

Lee, Fred N. *Low-Flow on Streams in Louisiana*. Louisiana Department of Environmental Quality. Baton Rouge, LA: March, 2000.

Louisiana Department of Environmental Quality. *State of Louisiana Water Quality Management Plan, Volume 6, Part A, Nonpoint Source Pollution Assessment Report*. Baton Rouge, LA: 1993.

Louisiana Department of Environmental Quality. *Environmental Regulatory Code, Part IX*. Water Regulations. Baton Rouge, LA: 1998.

Shoemaker, L., et. al. *Compendium of Tools for Watershed Assessment and TMDL Development*. Office of Wetland, Oceans, and Watersheds, USEPA, EPA841-B-97-066. Washington, DC: May, 1997.

Smythe, E. deEtte. *Overview of the 1995 and 1996 Reference Streams*. Louisiana Department of Environmental Quality. Baton Rouge, LA: June 28, 1999.

Waldon M. G., R. K. Duerr, and Marian U. Aguillard. *Louisiana Total Maximum Daily Load Technical Procedures*. Louisiana Department of Environmental Quality. Baton Rouge, LA: May, 2000.

Wiland, Bruce L. *LA-QUAL for Windows User's Manual (Version 3.02C)*. Water Support Division, Engineering Section, Louisiana Department of Environmental Quality. Baton Rouge LA: March, 2000.

8. Appendices

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix A - Calibration Model Development

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

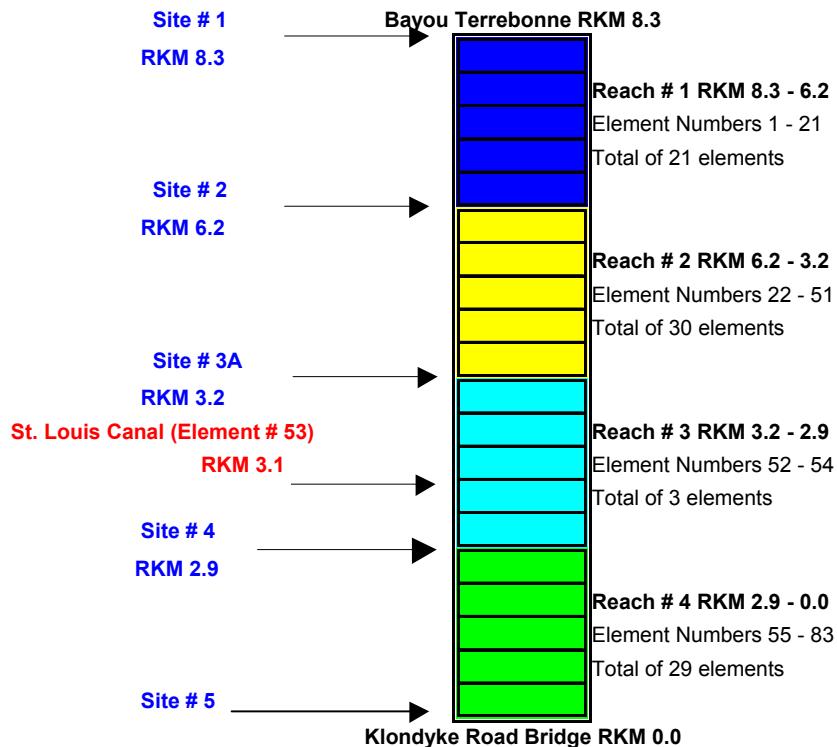
Revised: December 17, 2004

Revised: January 7, 2005

Appendix A1 – Vector Diagram

Bayou Petit Caillou Model Layout

Subsegment 120503



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix A2 – Reach Setup

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Bayou Petit Caillou 120503		Description	Headwater Yes/No	Starting modeled Kilometer	Ending modeled Kilometer	Modeled Length kilometers	Element Count	Cumulative Elements	Begin Element #	End Element #
1	Headwater to Site 2		Yes	8.3	6.2	2.10	0.100	21	21	1
2	Site 2 to Site 3A		No	6.2	3.2	3.00	0.100	30	30	22
3	Site 3A to Site 4		No	3.2	2.9	0.30	0.100	3	3	52
4	Site 4 to Site 5		No	2.9	0	2.90	0.100	29	50	55
								83		

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

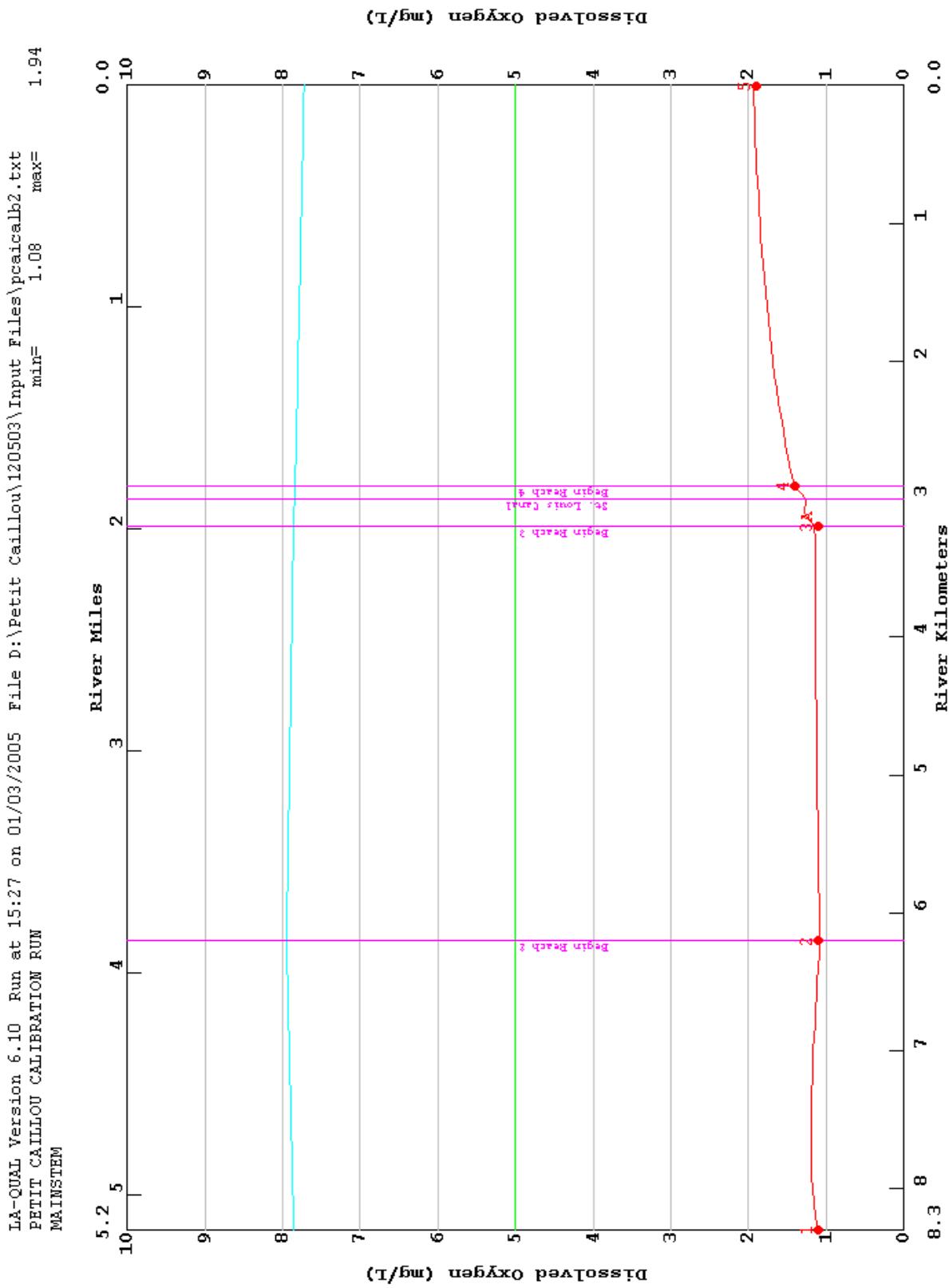
Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

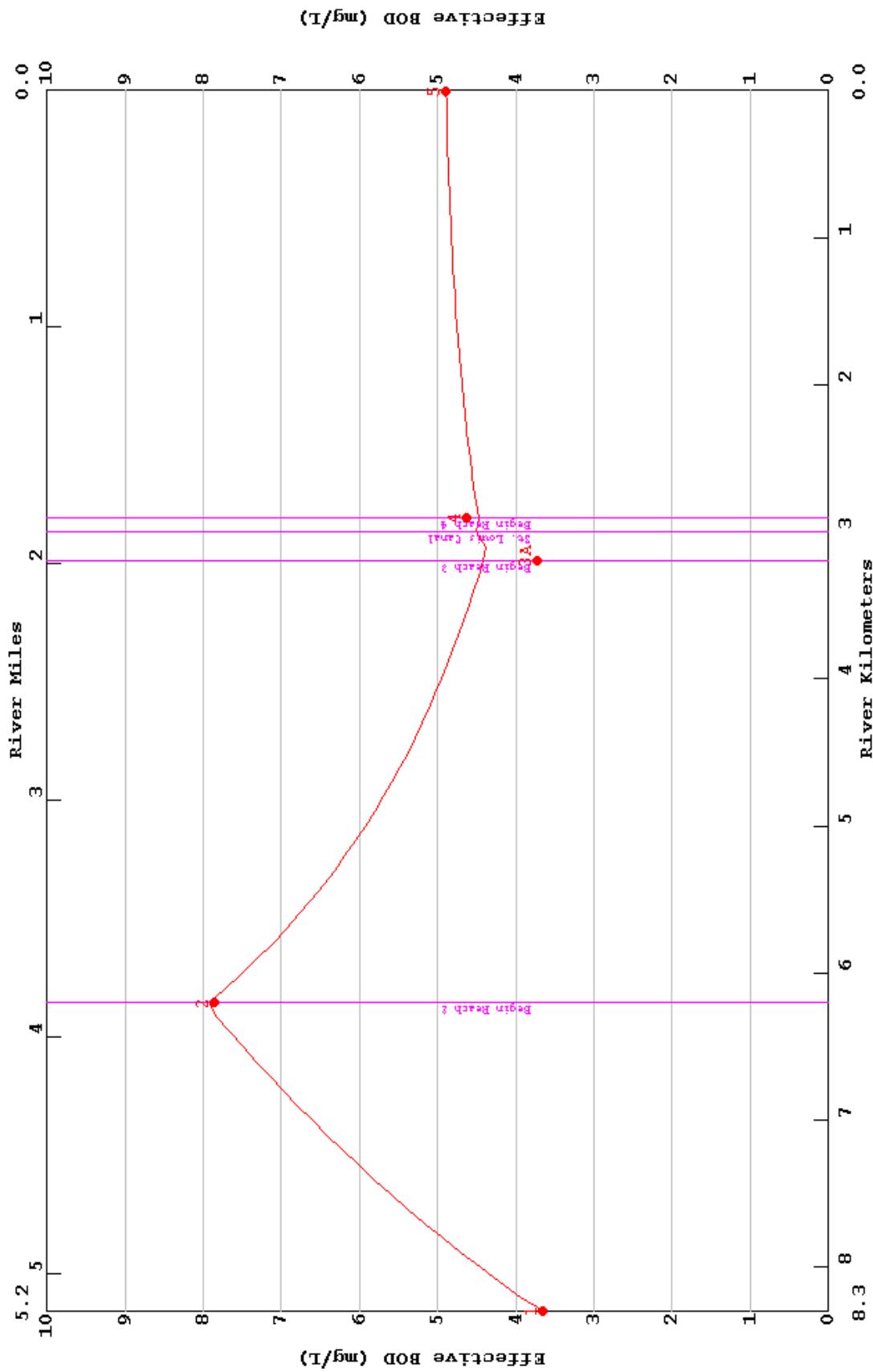
Appendix A3 – Calib Output and Graphs

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

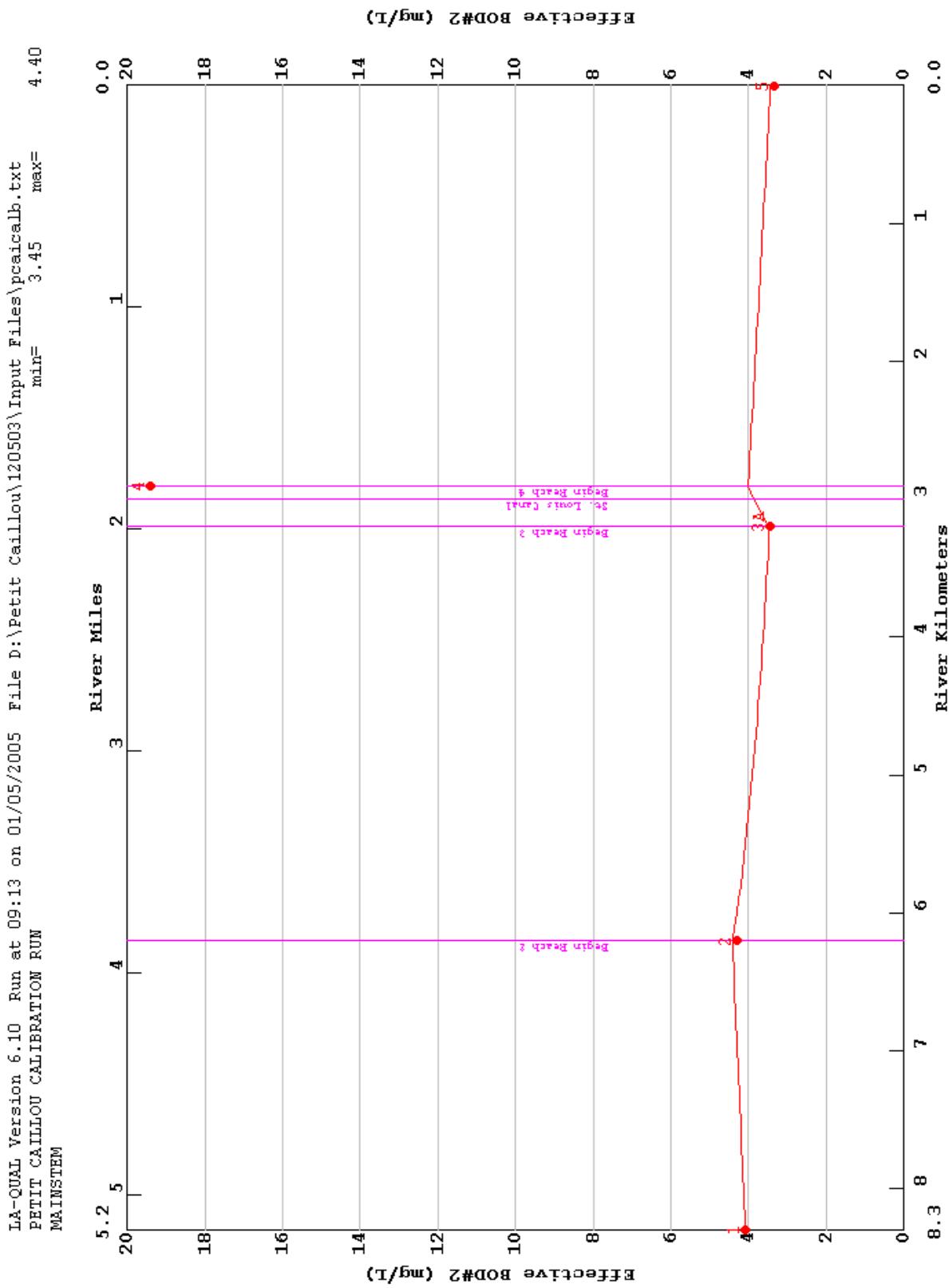


Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

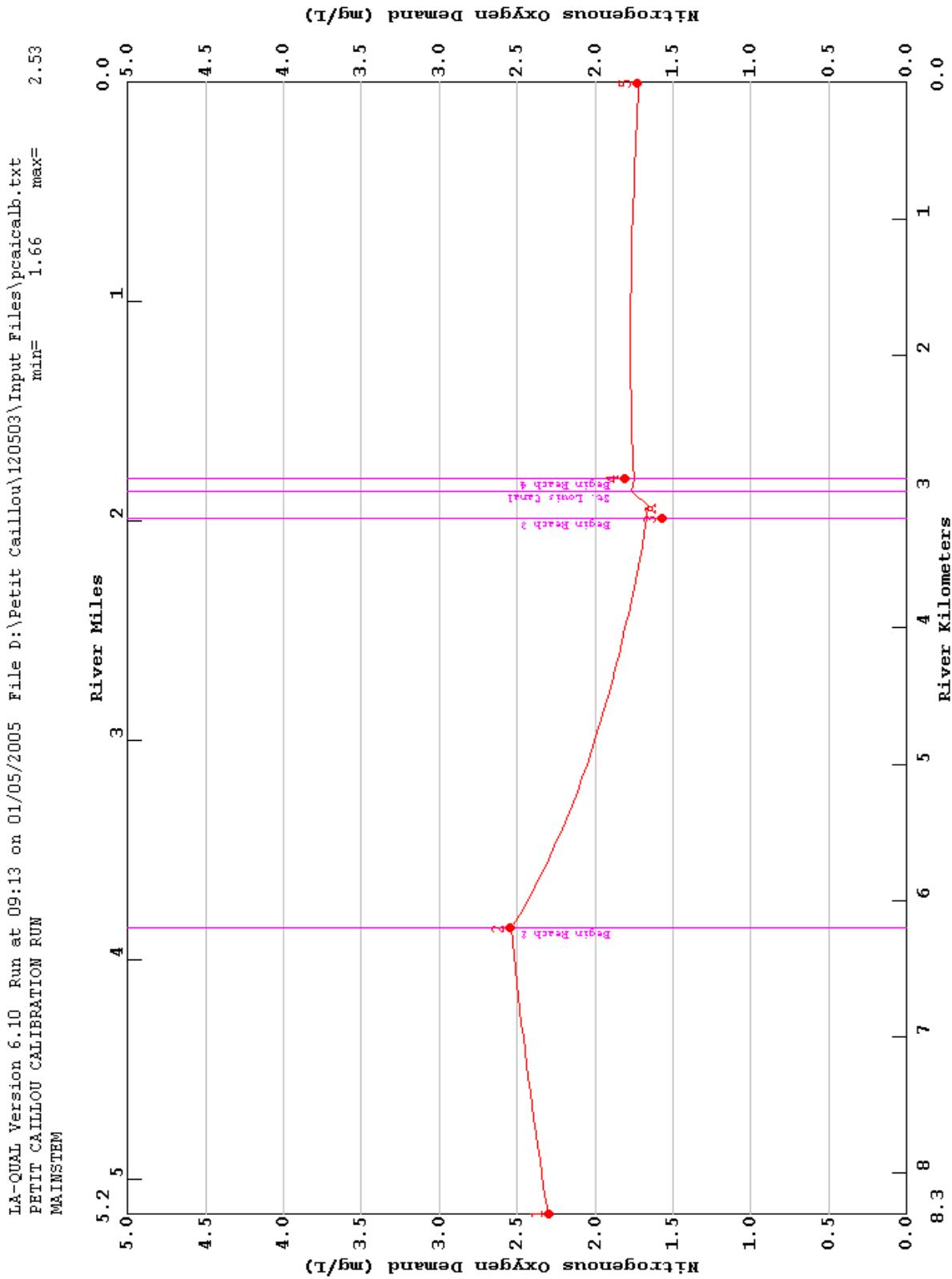
LA-QUAL Version 6.10 Run at 09:13 on 01/05/2005 File D:\Petit Caillou\120503\Input Files\pcaicalb.txt
PETIT CAILLOU CALIBRATION RUN
MAINSTEM



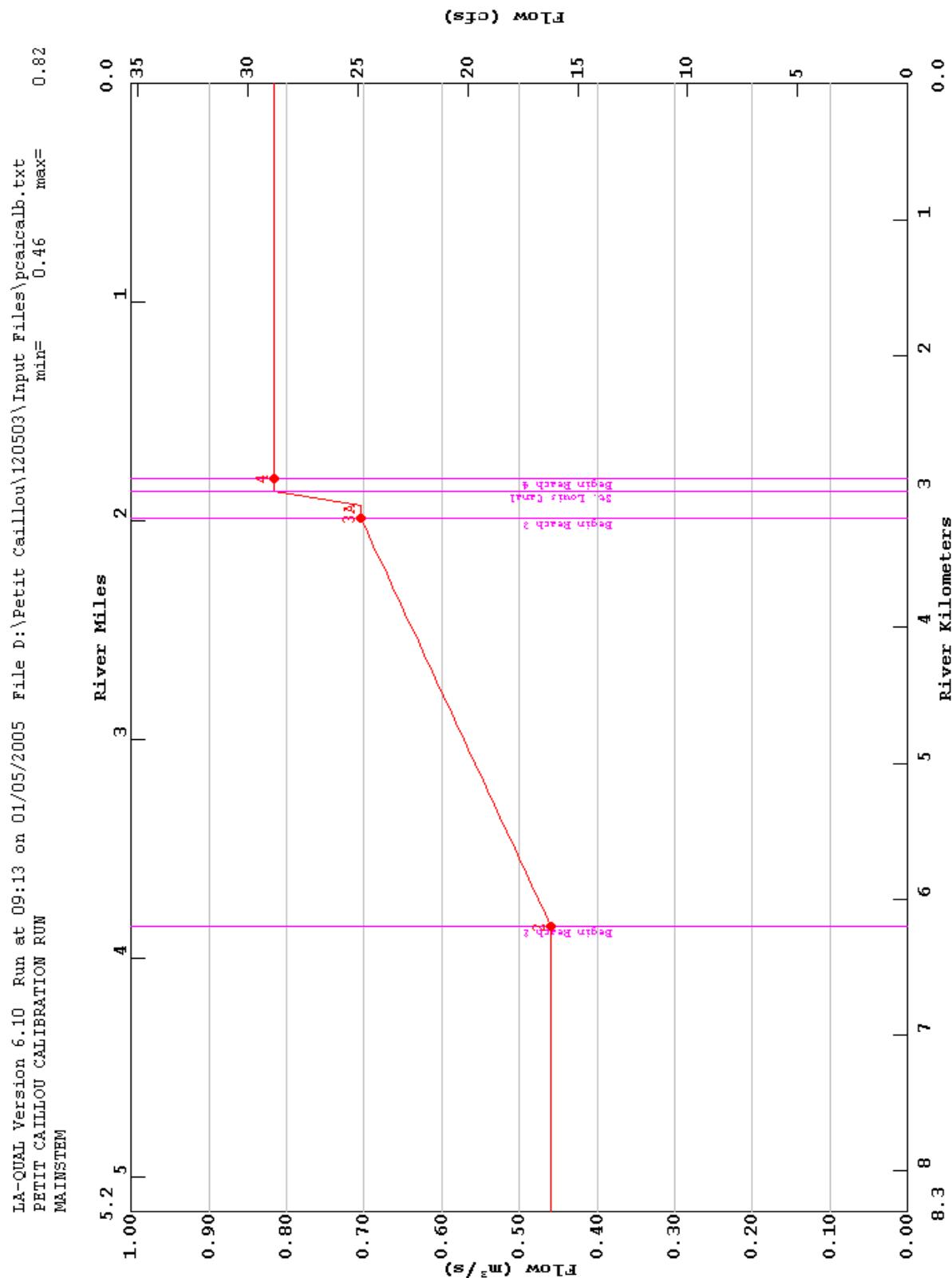
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



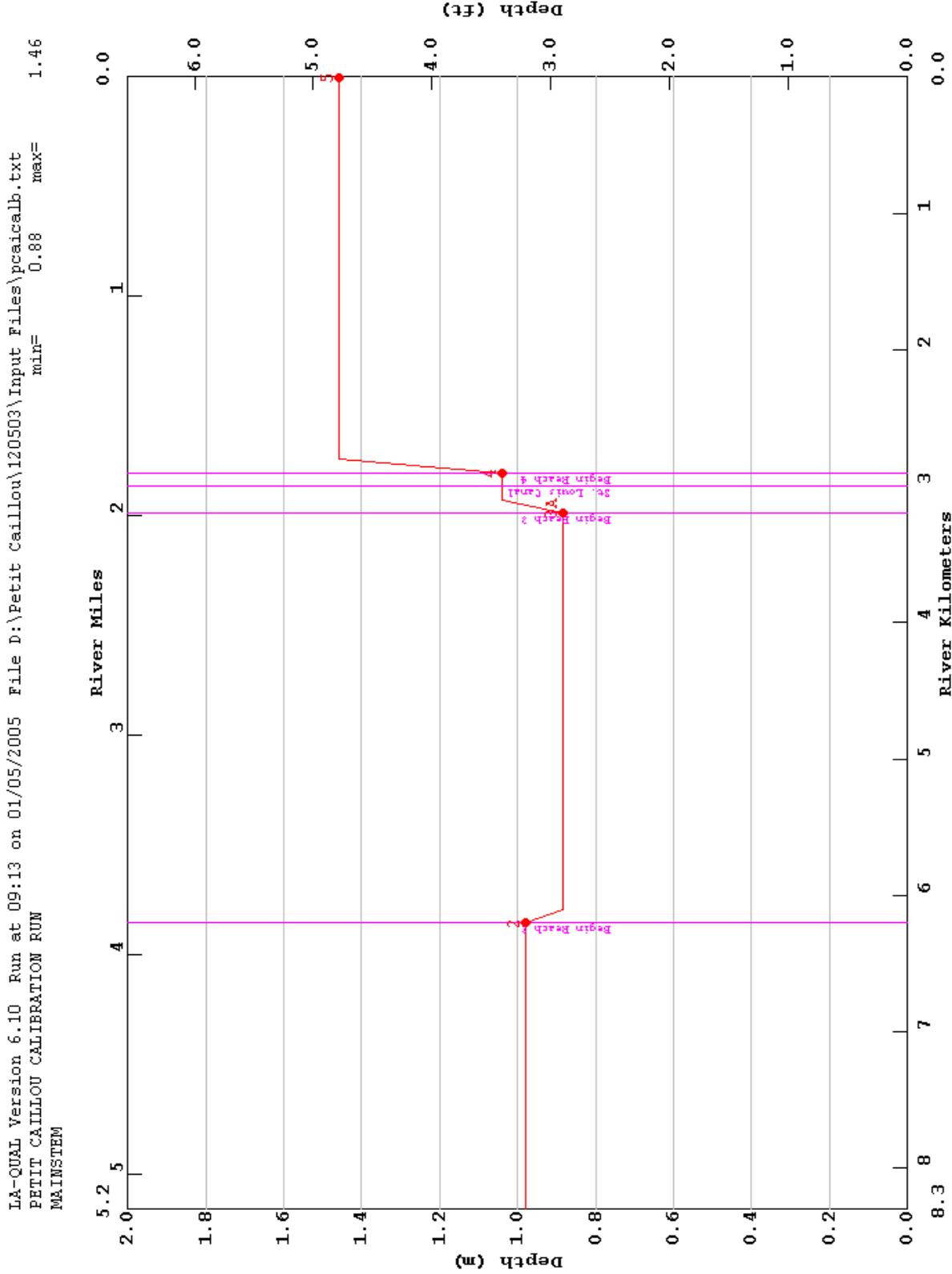
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



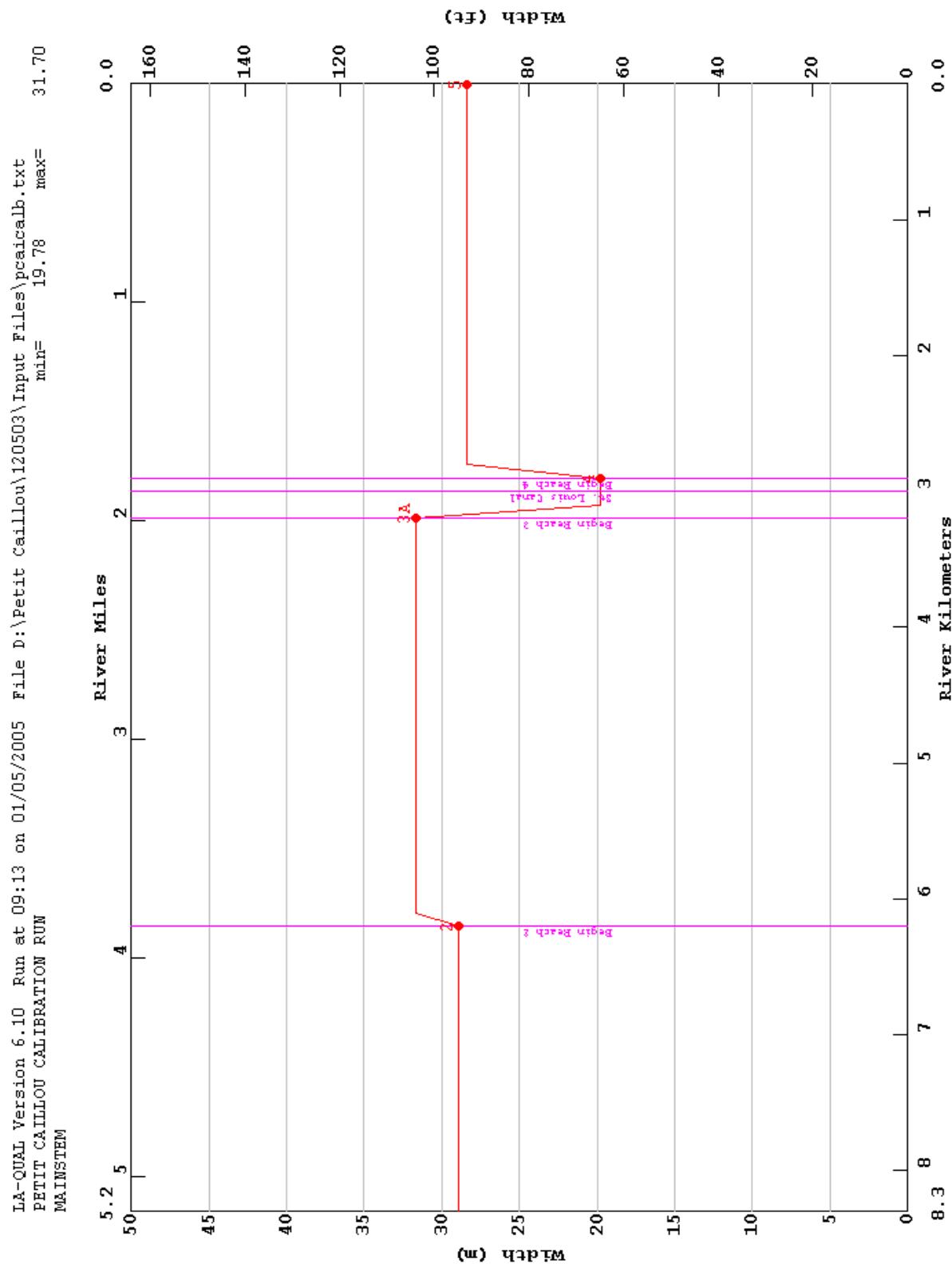
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

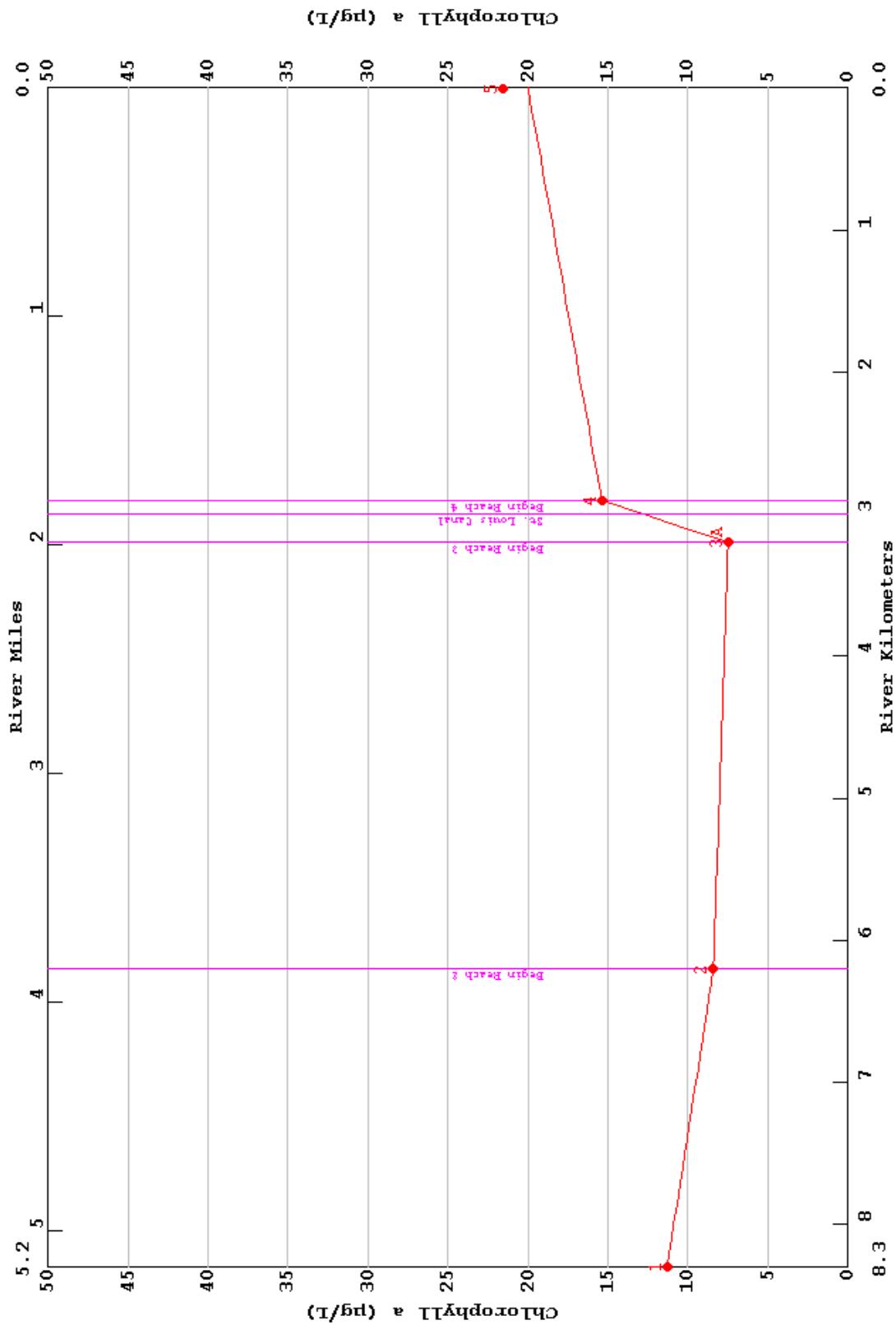


Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

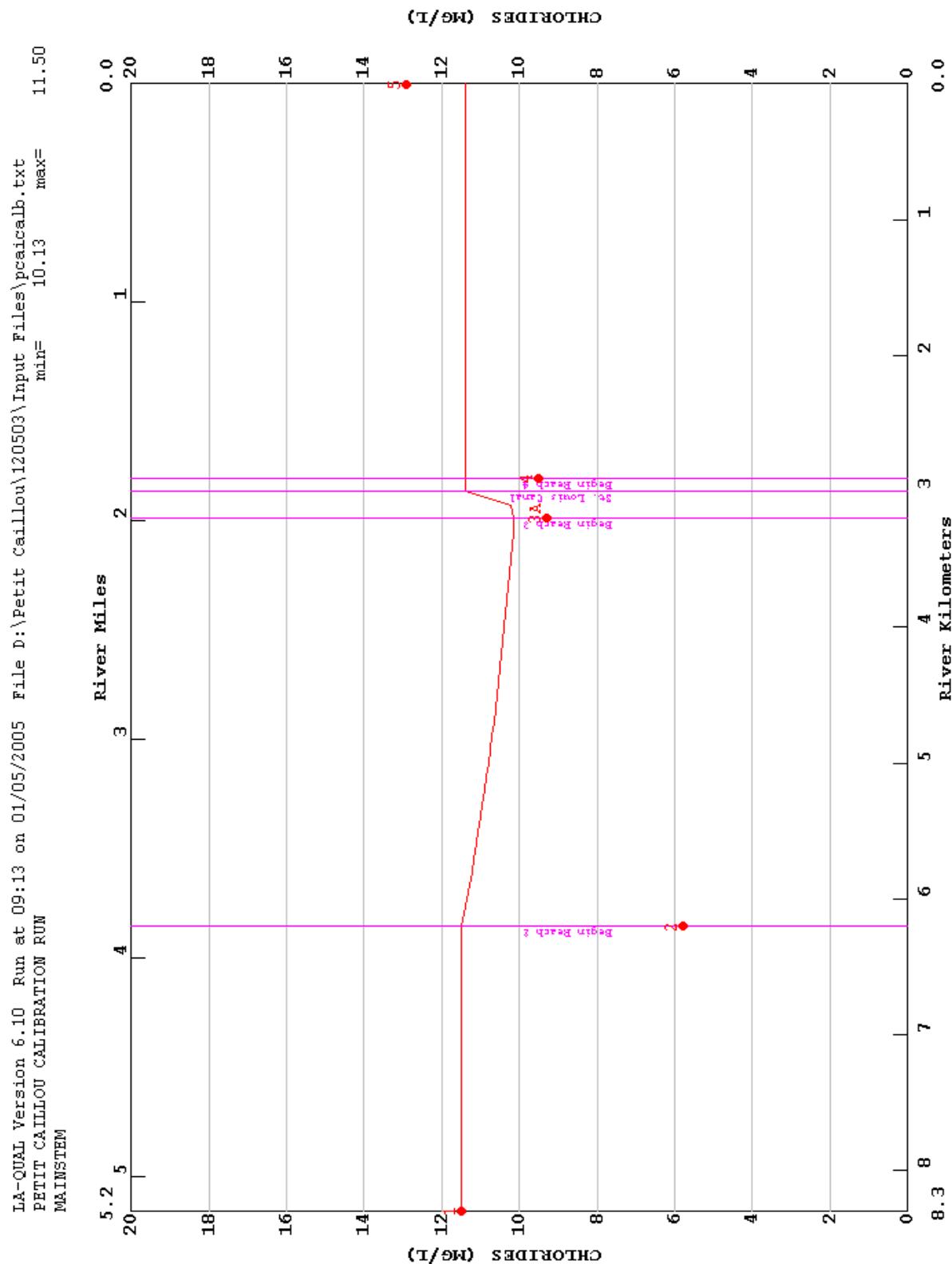


Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

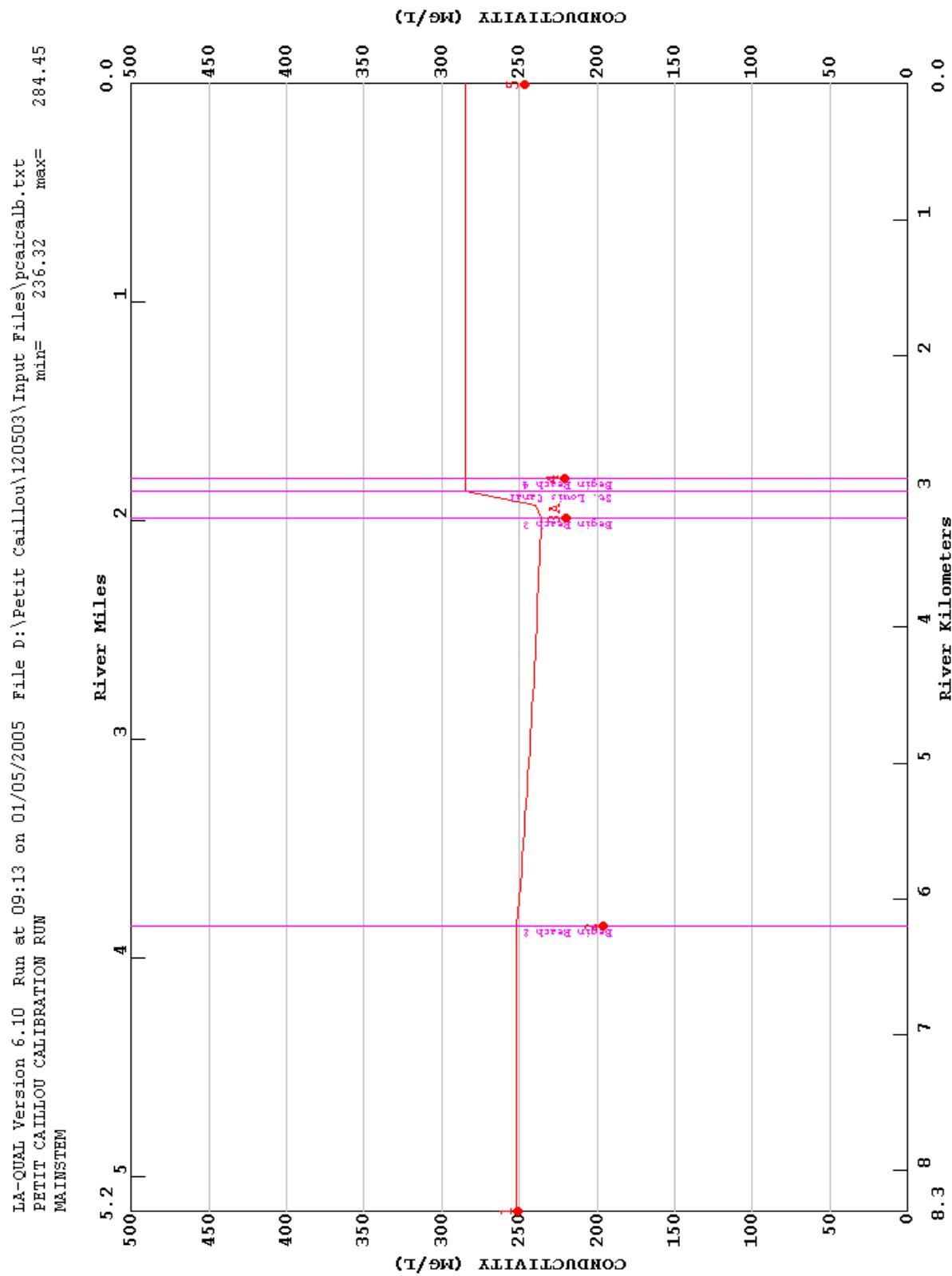
LA-QUAL Version 6.10 Run at 09:13 on 01/05/2005 File D:\Petit Caillou\120503\Input Files\pcaicallb.txt
PETIT CAILLOU CALIBRATION RUN
MAINTAIN



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



BAYOU PETIT CAILLOU CALIBRATION INPUT DATA SET

CNTROL01 PETIT CAILLOU WATERSHED MODEL
CNTROL02 PETIT CAILLOU CALIBRATION RUN
CNTROL04 YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10 NO PHOSPHORUS
MODOPT11 NO CHLOROPHYLL A
MODOPT12 NO MACROPHYTES
MODOPT13 NO COLIFORM
ENDATA02
PROGRAM KL MINIMUM = 0.7
PROGRAM INHIBITION CONTROL VALUE = 3.
PROGRAM K2 MAXIMUM = 25.0
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
PROGRAM SETTLING RATE UNITS = 2.
PROGRAM OCEAN EXCHANGE RATIO = 0.0
ENDATA03
!Temperature Correction Constants
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!

ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
*** -- *****
!
REACH ID R# ID SITE NAME RKM RKM LENGTH
REACH ID 1 PC HEADWATER - SITE 2 8.3 6.2 0.1
REACH ID 2 PC SITE 2 - SITE 3A 6.2 3.2 0.1
REACH ID 3 PC SITE 3A - SITE 4 3.2 2.9 0.1
REACH ID 4 PC SITE 4 - SITE 5 2.9 0.0 0.1
ENDATA08

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

!Advective Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

! a b c d e f

! WIDTH WIDTH WIDTH DEPTH DEPTH DEPTH

! R# COEFF EXP CONST COEFF EXP CONST SLOPE MANNING

HYDR-1 1 0.00 0.00 28.956 0.00 0.00 0.978

HYDR-1 2 0.00 0.00 31.699 0.00 0.00 0.884

HYDR-1 3 0.00 0.00 19.782 0.00 0.00 1.039

HYDR-1 4 0.00 0.00 28.377 0.00 0.00 1.457

ENDATA09

!Dispersive Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

! TIDAL

! R# RANGE a b c d

HYDR-2 1 0.0 0.244 0.0 0.0 0.0

HYDR-2 2 0.0 0.244 0.0 0.0 0.0

HYDR-3 3 0.0 0.244 0.0 0.0 0.0

HYDR-4 4 0.0 1.167 0.0 0.0 0.0

ENDATA10

!Initial Conditions

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

! R# TEMP SALINITY DO NH3 N NIT NIT PHOS CHL A MACROPHYTES

INITIAL 1 27.761 0.12 0.82 11.30

INITIAL 2 27.113 0.09 0.46 8.40

INITIAL 3 27.733 0.10 1.26 7.50

INITIAL 4 27.901 0.10 1.51 15.40

ENDATA11

!Reaeration, Sediment Oxygen Demand and BOD Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8-----9

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----*****

! BOD 1 BOD 1 BOD 2 BOD 2

! SOD DECAY SETT DECAY SETT

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

COEF-1	1	11.00	0.70	0.0	0.0	3.10	0.2147	0.20	0.0	0.0305	0.1
COEF-1	2	11.00	0.70	0.0	0.0	3.40	0.1431	0.20	0.0	0.0305	0.1
COEF-1	3	11.00	0.70	0.0	0.0	1.10	0.1402	0.20	0.0	0.0196	0.1
COEF-1	4	11.00	0.70	0.0	0.0	2.80	0.1373	0.20	0.0	0.0195	0.1

ENDATA12

Nitrogen and Phosphorus Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----

! NBOD NBOD

! R# DECAY SETT

COEF-2 1 0.1247 0.20

COEF-2 2 0.1184 0.20

COEF-2 3 0.1047 0.20

COEF-2 4 0.1253 0.20

ENDATA13

ENDATA14

Coliform and Nonconservative Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----

ENDATA15

Incremental Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----

! R# OUTFLOW INFLOW TEMP SALINITY CHLORIDE COND

INCR-1 1 0.0 0.0000 00.000 0.0 0.00 0.0

INCR-1 2 0.0 0.24489 27.423 0.095 7.55 206.2

INCR-1 3 0.0 0.0000 00.000 0.0 0.00 0.0

INCR-1 4 0.0 0.0000 00.000 0.0 0.00 0.0

ENDATA16

Incremental Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----

! R# DO BOD 1 NBOD NH3 N NIT NIT BOD 2

INCR-2 1 0.00 0.00 0.00 0.00

INCR-2 2 2.00 5.79 2.06 3.87

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

INCR-2	3	0.00	0.00	0.00	0.00
INCR-2	4	0.00	0.00	0.00	0.00

ENDATA17

! Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*

! R# PHOSPH CHL A COLIFORM NONCONSERVATIVE

INCR-3	1	0.000
INCR-3	2	0.000
INCR-3	3	0.000
INCR-3	4	0.000

ENDATA18

! Nonpoint Source Data

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----*

	R#	BOD 1	NBOD	COLIFORM	NONCONS	DO	BOD 2
NONPOINT	1	320.0	47.0	0.0	0.0000	0.0	50.00
NONPOINT	2	0.0	0.0	0.0	0.0000	0.0	0.00
NONPOINT	3	0.0	0.0	0.0	0.0000	0.0	40.00
NONPOINT	4	270.0	70.0	0.0	0.0000	0.0	25.00

ENDATA19

! Headwater Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** ----- *** -----*****-----*****-----*****-----*

	E#	NAME	FLOW	TEMP	SALIN	CHLORIDE	COND
HDWTR-1	1	HEADWATER	0.	0.45921	27.761	0.12	11.5
							252.4

ENDATA20

! Headwater Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----*

	E#	DO	BOD 1	NBOD	NH3 N	NIT NIT	BOD 2
HDWTR-2	1	1.10	3.64	2.30	0.00	0.00	4.07

ENDATA21

! Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

!234567890123456789012345678901234567890123456789012345678901234567890

! **** -----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

HDWTR-3 1 11.3

ENDATA22

ENDATA23

!Wasteload Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! **** -----*****-----*****-----*****-----*****-----*

! E# NAME FLOW TEMP SALINITY CHLORIDE COND

WSTLD-1 53 ST. LOUIS CANAL 0.1116 25.22 .27 19.3 589.7

ENDATA24

!Wasteload Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! **** -----*****-----*****-----*****-----*****-----*

! E# DO BOD 1 NBOD NH3 N NIT NIT BOD 2

WSTLD-2 53 0.23 5.76 2.55 0.00 0.00 3.75

ENDATA25

!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! **** -----*****-----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

WSTLD-3 53

ENDATA26

LOWER BC TEMPERATURE = 28.72

LOWER BC SALINITY = 0.13

LOWER BC CONSERVATIVE MATERIAL I = 17.90

LOWER BC CONSERVATIVE MATERIAL II = 278.30

LOWER BC DISSOLVED OXYGEN = 1.61

LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 4.63

LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND = 3.59

LOWER BC CHLOROPHYLL A = 20.00

LOWER BC NBOD = 2.27

ENDATA27

!Dam Data

!-----1-----2-----3-----4-----5-----6-----7-----8

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

```
!234567890123456789012345678901234567890123456789012345678901234567890
!      **** * ***** * ***** * ***** * ***** * ***** * *****
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 =     4           INCREMENT =  0.1
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!      ** * * * * * * * * * * * * * * * * * * * * * * * * * * *
PLOT RCH  1  2  3  4
ENDATA30
OVERLAY 1 pcaiov1.txt          :MAINSTEM
ENDATA31
```

BAYOU PETIT CAILLOU CALIBRATION OUTPUT DATA SET

LA-QUAL Version 6.10

Louisiana Department of Environmental Quality

Input file is D:\Petit Caillou\120503\Input Files\pcaicalb.txt
Output produced at 09:13 on 01/05/2005

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 PETIT CAILLOU WATERSHED MODEL
TITLE02 PETIT CAILLOU CALIBRATION RUN
CNTROL04 YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1 BIOCHEMICAL OXYGEN DEMAND	
MODOPT07	YES	BOD2 BIOCHEMICAL OXYGEN DEMAND	
MODOPT08	YES	NBOD OXYGEN DEMAND	
MODOPT10	NO	PHOSPHORUS	
MODOPT11	NO	CHLOROPHYLL A	
MODOPT12	NO	MACROPHYTES	
MODOPT13	NO	COLIFORM	
ENDATA02			

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

PROGRAM	KL MINIMUM	=	0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	=	3.00000 (inhibit all rates but SOD)
PROGRAM	K2 MAXIMUM	=	25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	=	2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	=	2.00000 (values entered as per day)
PROGRAM	OCEAN EXCHANGE RATIO	=	0.00000
ENDATA03			

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH km	END REACH km	ELEM LENGTH km	REACH LENGTH km	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM	
REACH ID	1	PC	HEADWATER - SITE 2	8.30	TO	6.20	0.1000	2.10	21	1	21
REACH ID	2	PC	SITE 2 - SITE 3A	6.20	TO	3.20	0.1000	3.00	30	22	51
REACH ID	3	PC	SITE 3A - SITE 4	3.20	TO	2.90	0.1000	0.30	3	52	54
REACH ID	4	PC	SITE 4 - SITE 5	2.90	TO	0.00	0.1000	2.90	29	55	83

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	PC	0.000	0.000	28.956	0.000	0.000	0.978	0.00000	0.000
HYDR-1	2	PC	0.000	0.000	31.699	0.000	0.000	0.884	0.00000	0.000
HYDR-1	3	PC	0.000	0.000	19.782	0.000	0.000	1.039	0.00000	0.000
HYDR-1	4	PC	0.000	0.000	28.377	0.000	0.000	1.457	0.00000	0.000

ENDATA09

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	PC	0.00	0.244	0.000	0.000	0.000
HYDR	2	PC	0.00	0.244	0.000	0.000	0.000
HYDR	3	PC	0.00	0.244	0.000	0.000	0.000
HYDR	4	PC	0.00	1.167	0.000	0.000	0.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	PC	27.76	0.12	0.82	0.00	0.00	0.00	11.30	0.00
INITIAL	2	PC	27.11	0.09	0.46	0.00	0.00	0.00	8.40	0.00
INITIAL	3	PC	27.73	0.10	1.26	0.00	0.00	0.00	7.50	0.00
INITIAL	4	PC	27.90	0.10	1.51	0.00	0.00	0.00	15.40	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECAY per day	BOD SETT m/d	ANAER BOD2 TO SOD	BOD2 DECAY per day	BOD2 SETT m/d	BOD2 CONV TO SOD	ANAER BOD2 DECAY per day
-----------	---------	--------	--------	--------	--------	--------	--------------------------------	-------------------	--------------	-------------------	--------------------	---------------	------------------	--------------------------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

COEF-1	1	PC	11 TEXAS	0.700	0.000	0.000	3.100	0.215	0.200	0.000	0.000	0.031	0.100	0.000	0.000
COEF-1	2	PC	11 TEXAS	0.700	0.000	0.000	3.400	0.143	0.200	0.000	0.000	0.031	0.100	0.000	0.000
COEF-1	3	PC	11 TEXAS	0.700	0.000	0.000	1.100	0.140	0.200	0.000	0.000	0.020	0.100	0.000	0.000
COEF-1	4	PC	11 TEXAS	0.700	0.000	0.000	2.800	0.137	0.200	0.000	0.000	0.020	0.100	0.000	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	NBOD	NBOD	ORGN	CONV	NH3	NH3	PHOS	DENIT
			DECA	SETT	TO NH3	SRCE	DECA	SRCE	SRCE	RATE
COEF-2	1	PC	0.125	0.200	0.000		0.000	0.000	0.000	0.000
COEF-2	2	PC	0.118	0.200	0.000		0.000	0.000	0.000	0.000
COEF-2	3	PC	0.105	0.200	0.000		0.000	0.000	0.000	0.000
COEF-2	4	PC	0.125	0.200	0.000		0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI	ALGAE:	ALGAE	ALG CONV	ALGAE	ALGAE	MACRO	MACRO
			DEPTH	CHL A	SETT	TO SOD	GROW	RESP	GROW	RESP

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM	NCM	NCM	NCM	CONV
			DIE-OFF	DECAY	SETT	TO SOD	

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	PC	0.00000	0.24489	27.42	0.09	7.55	206.20	0.08163	0.00000
INCR-1	3	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	4	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2		
INCR-2	1	PC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	2	PC	2.00	5.79	2.06	0.00	0.00	3.87
INCR-2	3	PC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4	PC	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	PC	0.00	0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

INCR-3	2	PC	0.00	0.00	0.00	0.00
INCR-3	3	PC	0.00	0.00	0.00	0.00
INCR-3	4	PC	0.00	0.00	0.00	0.00

ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	PC	320.00	47.00	0.00	0.00	0.00	50.00
NONPOINT	2	PC	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	PC	0.00	0.00	0.00	0.00	0.00	40.00
NONPOINT	4	PC	270.00	70.00	0.00	0.00	0.00	25.00

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
HDWTR-1	1	HEADWATER	0	0.45921	16.215	27.76	0.12	11.500	252.000

ENDATA20

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L		BOD#2 mg/L
HDWTR-2	1	HEADWATER	1.10	3.64	2.30	0.00	0.00

ENDATA21

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3	1	HEADWATER	0.00	11.30	0.00	0.00

ENDATA22

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION	UPSTRM	RIVER	NAME
	ELEMENT	ELEMENT	KILOM	

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKilo	Name	FLOW m ³ /s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	53	3.10	ST. LOUIS CANAL	0.11160	3.94068	2.547	25.22	0.27	19.300	589.700

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO	BOD	% BOD RMVL	NBOD	% NITRIF	BOD#2
-----------	---------	------	----	-----	---------------	------	-------------	-------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

			mg/L		mg/L		mg/L		mg/L		mg/L
WSTLD-2	53	ST. LOUIS CANAL	0.23	5.76	0.00	2.55	0.00	0.00	0.00	3.75	

\$\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
-----------	---------	------	--------------	---------------	--------------	-------------

WSTLD-3	53	ST. LOUIS CANAL	0.00	0.00	0.00	0.00
---------	----	-----------------	------	------	------	------

\$\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
-----------	-------------	---------------

LOWER BC	TEMPERATURE	= 28.720	deg C
LOWER BC	SALINITY	= 0.130	ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 17.900	MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 278.300	MG/L
LOWER BC	DISSOLVED OXYGEN	= 1.610	mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 4.630	mg/L
LOWER BC	BOD2 BIOCHEMICAL OXYGEN DEMAND	= 3.590	mg/L
LOWER BC	CHLOROPHYLL A	= 20.000	µg/L
LOWER BC	NBOD	= 2.270	mg/L

\$\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
-----------	---------	------	-----	-----	-----	-----

ENDATA28

\$\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
-----------	-----------	-------	-------	-------	-------	-------	-------	-------	-------

ENDATA29

\$\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

```
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 4
PLOT RCH 1 2 3 4
ENDATA30
```

\$\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

```
OVERLAY 1 pcaiov1.txt :MAINSTEM
ENDATA31
```

.....NO ERRORS DETECTED IN INPUT DATA

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

FINAL REPORT HEADWATER
 REACH NO. 1 HEADWATER - SITE 2

PETIT CAILLOU WATERSHED MODEL
 PETIT CAILLOU CALIBRATION RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A ug/L	COLI #/100mL	NCM
1	HDWTR	0.45921	27.76	0.12	11.50	252.00	1.10	3.64	4.07	3.64	4.07	2.30	0.00	0.00	0.00	11.30	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s		
1	8.30	8.20	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
2	8.20	8.10	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
3	8.10	8.00	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
4	8.00	7.90	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
5	7.90	7.80	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
6	7.80	7.70	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
7	7.70	7.60	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
8	7.60	7.50	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
9	7.50	7.40	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
10	7.40	7.30	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
11	7.30	7.20	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
12	7.20	7.10	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
13	7.10	7.00	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
14	7.00	6.90	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
15	6.90	6.80	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
16	6.80	6.70	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
17	6.70	6.60	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
18	6.60	6.50	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
19	6.50	6.40	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
20	6.40	6.30	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
21	6.30	6.20	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016		
TOT					1.50				59469.85	60807.61							
Avg					0.01622			0.98	28.96			28.32					
CUM					1.50												

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 SRCE	ALG PROD	MAC PROD	COLI DECY	NCM DECY	NCM SETT
		mg/L	1/day	1/day	1/day	1/day	1/day	1/day	1/day	*	*	*	1/day	1/day	1/day	*	1/day	*	**	**	1/day	1/day	1/day

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

1	8.200	7.86	0.83	0.17	0.24	0.00	0.02	0.12	0.00	5.04	5.04	5.04	0.02	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	8.100	7.86	0.83	0.17	0.24	0.00	0.02	0.12	0.00	5.03	5.03	5.03	0.02	0.24	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00
3	8.000	7.87	0.83	0.18	0.24	0.00	0.02	0.12	0.00	5.02	5.02	5.02	0.02	0.24	0.00	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00
4	7.900	7.87	0.83	0.18	0.24	0.00	0.03	0.12	0.00	5.01	5.01	5.01	0.02	0.24	0.00	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00
5	7.800	7.88	0.83	0.18	0.24	0.00	0.03	0.12	0.00	5.00	5.00	5.00	0.02	0.24	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00
6	7.700	7.88	0.83	0.18	0.24	0.00	0.03	0.12	0.00	5.00	5.00	5.00	0.02	0.24	0.00	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00
7	7.600	7.89	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.99	4.99	4.99	0.02	0.24	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00
8	7.500	7.89	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.98	4.98	4.98	0.02	0.24	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
9	7.400	7.89	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.97	4.97	4.97	0.02	0.24	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00
10	7.300	7.90	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.96	4.96	4.96	0.02	0.24	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.00
11	7.200	7.90	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.95	4.95	4.95	0.02	0.24	0.00	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.00
12	7.100	7.91	0.82	0.17	0.24	0.00	0.03	0.12	0.00	4.94	4.94	4.94	0.02	0.24	0.00	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.00
13	7.000	7.91	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.93	4.93	4.93	0.02	0.24	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00
14	6.900	7.92	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.92	4.92	4.92	0.02	0.24	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00
15	6.800	7.92	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.91	4.91	4.91	0.02	0.24	0.00	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00
16	6.700	7.93	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.90	4.90	4.90	0.02	0.24	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00
17	6.600	7.93	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.89	4.89	4.89	0.02	0.24	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00
18	6.500	7.93	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.88	4.88	4.88	0.02	0.24	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00
19	6.400	7.94	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.87	4.87	4.87	0.02	0.24	0.00	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00
20	6.300	7.94	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.86	4.86	4.86	0.02	0.24	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00
21	6.200	7.95	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.85	4.85	4.85	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.72 0.21 0.20 0.00 0.03 0.10 0.00 3.10 0.12 0.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
1	8.200	27.73	0.12	11.50	252.00	1.13	3.95	4.09	3.95	4.09	2.32	0.00	0.00	0.00	11.16	0.00	0.	0.00	
2	8.100	27.70	0.12	11.50	252.00	1.15	4.21	4.11	4.21	4.11	2.33	0.00	0.00	0.00	11.02	0.00	0.	0.00	
3	8.000	27.67	0.12	11.50	252.00	1.17	4.46	4.13	4.46	4.13	2.34	0.00	0.00	0.00	10.89	0.00	0.	0.00	
4	7.900	27.64	0.11	11.50	252.00	1.18	4.70	4.14	4.70	4.14	2.36	0.00	0.00	0.00	10.75	0.00	0.	0.00	
5	7.800	27.61	0.11	11.50	252.00	1.19	4.94	4.16	4.94	4.16	2.37	0.00	0.00	0.00	10.61	0.00	0.	0.00	
6	7.700	27.58	0.11	11.50	252.00	1.20	5.17	4.18	5.17	4.18	2.38	0.00	0.00	0.00	10.47	0.00	0.	0.00	
7	7.600	27.55	0.11	11.50	252.00	1.20	5.39	4.19	5.39	4.19	2.39	0.00	0.00	0.00	10.33	0.00	0.	0.00	
8	7.500	27.51	0.11	11.50	252.00	1.20	5.60	4.21	5.60	4.21	2.40	0.00	0.00	0.00	10.20	0.00	0.	0.00	
9	7.400	27.48	0.11	11.50	252.00	1.19	5.81	4.23	5.81	4.23	2.42	0.00	0.00	0.00	10.06	0.00	0.	0.00	
10	7.300	27.45	0.11	11.50	252.00	1.19	6.02	4.24	6.02	4.24	2.43	0.00	0.00	0.00	9.92	0.00	0.	0.00	
11	7.200	27.42	0.10	11.50	252.00	1.18	6.22	4.26	6.22	4.26	2.44	0.00	0.00	0.00	9.78	0.00	0.	0.00	
12	7.100	27.39	0.10	11.50	252.00	1.17	6.41	4.27	6.41	4.27	2.45	0.00	0.00	0.00	9.64	0.00	0.	0.00	
13	7.000	27.36	0.10	11.50	252.00	1.17	6.60	4.29	6.60	4.29	2.46	0.00	0.00	0.00	9.50	0.00	0.	0.00	
14	6.900	27.33	0.10	11.50	252.00	1.16	6.79	4.31	6.79	4.31	2.47	0.00	0.00	0.00	9.37	0.00	0.	0.00	
15	6.800	27.30	0.10	11.50	252.00	1.15	6.97	4.32	6.97	4.32	2.48	0.00	0.00	0.00	9.23	0.00	0.	0.00	
16	6.700	27.27	0.10	11.50	252.00	1.14	7.15	4.34	7.15	4.34	2.49	0.00	0.00	0.00	9.09	0.00	0.	0.00	
17	6.600	27.24	0.10	11.50	252.00	1.13	7.32	4.35	7.32	4.35	2.50	0.00	0.00	0.00	8.95	0.00	0.	0.00	
18	6.500	27.21	0.09	11.50	252.00	1.11	7.49	4.37	7.49	4.37	2.51	0.00	0.00	0.00	8.81	0.00	0.	0.00	
19	6.400	27.17	0.09	11.50	252.00	1.10	7.66	4.38	7.66	4.38	2.52	0.00	0.00	0.00	8.68	0.00	0.	0.00	
20	6.300	27.14	0.09	11.50	251.98	1.09	7.81	4.40	7.81	4.40	2.53	0.00	0.00	0.00	8.54	0.00	0.	0.00	
21	6.200	27.11	0.09	11.49	251.88	1.08	7.93	4.40	7.93	4.40	2.53	0.00	0.00	0.00	8.40	0.00	0.	0.00	

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

REACH NO. 2 SITE 2 - SITE 3A

PETIT CAILLOU CALIBRATION RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
22	UPR RCH	0.45921	27.11	0.09	11.49	251.88	1.08	7.93	4.40	7.93	4.40	2.53	0.00	0.00	0.00	8.40	0.00	0.00
EACH	INCR	0.00816	27.42	0.09	7.55	206.20	2.00	5.79	3.87			2.06	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPNSN m²/s	MEAN VELO m/s	
22	6.20	6.10	0.46737	0.0	0.01668	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.017	
23	6.10	6.00	0.47554	0.0	0.01697	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.017	
24	6.00	5.90	0.48370	0.0	0.01726	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.017	
25	5.90	5.80	0.49186	0.0	0.01755	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018	
26	5.80	5.70	0.50003	0.0	0.01784	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018	
27	5.70	5.60	0.50819	0.0	0.01814	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018	
28	5.60	5.50	0.51635	0.0	0.01843	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018	
29	5.50	5.40	0.52451	0.0	0.01872	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.019	
30	5.40	5.30	0.53268	0.0	0.01901	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.019	
31	5.30	5.20	0.54084	0.0	0.01930	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.019	
32	5.20	5.10	0.54900	0.0	0.01959	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020	
33	5.10	5.00	0.55717	0.0	0.01988	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020	
34	5.00	4.90	0.56533	0.0	0.02017	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020	
35	4.90	4.80	0.57349	0.0	0.02047	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020	
36	4.80	4.70	0.58165	0.0	0.02076	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.021	
37	4.70	4.60	0.58982	0.0	0.02105	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.021	
38	4.60	4.50	0.59798	0.0	0.02134	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.021	
39	4.50	4.40	0.60614	0.0	0.02163	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.022	
40	4.40	4.30	0.61431	0.0	0.02192	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.022	
41	4.30	4.20	0.62247	0.0	0.02221	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.022	
42	4.20	4.10	0.63063	0.0	0.02250	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023	
43	4.10	4.00	0.63880	0.0	0.02280	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023	
44	4.00	3.90	0.64696	0.0	0.02309	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023	
45	3.90	3.80	0.65512	0.0	0.02338	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023	
46	3.80	3.70	0.66328	0.0	0.02367	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.024	
47	3.70	3.60	0.67145	0.0	0.02396	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.024	
48	3.60	3.50	0.67961	0.0	0.02425	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.024	
49	3.50	3.40	0.68777	0.0	0.02454	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.025	
50	3.40	3.30	0.69594	0.0	0.02484	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.025	
51	3.30	3.20	0.70410	0.0	0.02513	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.025	
TOT					1.69				84065.77	95096.98						
Avg					0.02060			0.88	31.70			28.02				
Cum								3.18								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM	ENDING	SAT	REAER	BOD#1	BOD#1	ABOD#1	BOD#2	BOD#2	ABOD#2	BKGD	FULL	CORR	ORGN	ORGN	NH3	NH3	DENIT	PO4	ALG	MAC	COLI	NCM	NCM
------	--------	-----	-------	-------	-------	--------	-------	-------	--------	------	------	------	------	------	-----	-----	-------	-----	-----	-----	------	-----	-----

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

NO.	DIST	D.O. mg/L	RATE 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SETT 1/da	DECAY 1/da	SETT 1/da	SOD *	SOD *	SOD *	DECAY 1/da	SETT 1/da	DECAY 1/da	SRCE *	RATE 1/da	SRCE *	PROD **	PROD **	DECAY 1/da	DECAY 1/da	SETT 1/da
22	6.100	7.95	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.33	5.33	5.33	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
23	6.000	7.94	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.34	5.34	5.34	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
24	5.900	7.94	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.34	5.34	5.34	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
25	5.800	7.94	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.35	5.35	5.35	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
26	5.700	7.93	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.36	5.36	5.36	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
27	5.600	7.93	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.36	5.36	5.36	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
28	5.500	7.93	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.37	5.37	5.37	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
29	5.400	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.38	5.38	5.38	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
30	5.300	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.38	5.38	5.38	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
31	5.200	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.39	5.39	5.39	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
32	5.100	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.40	5.40	5.40	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
33	5.000	7.91	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.41	5.41	5.41	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
34	4.900	7.91	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.41	5.41	5.41	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
35	4.800	7.91	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.42	5.42	5.42	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
36	4.700	7.90	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.43	5.43	5.43	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
37	4.600	7.90	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.43	5.43	5.43	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
38	4.500	7.90	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.44	5.44	5.44	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
39	4.400	7.90	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.45	5.45	5.45	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
40	4.300	7.89	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.45	5.45	5.45	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
41	4.200	7.89	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.46	5.46	5.46	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
42	4.100	7.89	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.47	5.47	5.47	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
43	4.000	7.88	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.48	5.48	5.48	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
44	3.900	7.88	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.48	5.48	5.48	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
45	3.800	7.88	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.49	5.49	5.49	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
46	3.700	7.87	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.50	5.50	5.50	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
47	3.600	7.87	0.91	0.12	0.24	0.00	0.03	0.12	0.00	5.50	5.50	5.50	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
48	3.500	7.87	0.91	0.12	0.24	0.00	0.03	0.12	0.00	5.51	5.51	5.51	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
49	3.400	7.87	0.91	0.12	0.24	0.00	0.03	0.12	0.00	5.52	5.52	5.52	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
50	3.300	7.86	0.92	0.12	0.24	0.00	0.03	0.12	0.00	5.53	5.53	5.53	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
51	3.200	7.86	0.92	0.12	0.24	0.00	0.03	0.12	0.00	5.53	5.53	5.53	0.02	0.24	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00
Avg	20	DEG C RATE		0.79	0.14	0.20	0.00	0.03	0.10	0.00	3.40			0.12	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM
22	6.100	27.13	0.09	11.42	251.09	1.09	7.71	4.35	7.71	4.35	2.48	0.00	0.00	0.00	8.37	0.00	0.	0.00	
23	6.000	27.15	0.09	11.36	250.32	1.09	7.50	4.30	7.50	4.30	2.43	0.00	0.00	0.00	8.34	0.00	0.	0.00	
24	5.900	27.18	0.09	11.29	249.58	1.09	7.31	4.26	7.31	4.26	2.39	0.00	0.00	0.00	8.31	0.00	0.	0.00	
25	5.800	27.20	0.09	11.23	248.86	1.09	7.12	4.21	7.12	4.21	2.34	0.00	0.00	0.00	8.28	0.00	0.	0.00	
26	5.700	27.22	0.09	11.17	248.17	1.10	6.94	4.17	6.94	4.17	2.30	0.00	0.00	0.00	8.25	0.00	0.	0.00	
27	5.600	27.24	0.09	11.11	247.50	1.10	6.78	4.12	6.78	4.12	2.26	0.00	0.00	0.00	8.22	0.00	0.	0.00	
28	5.500	27.26	0.09	11.06	246.85	1.10	6.62	4.08	6.62	4.08	2.22	0.00	0.00	0.00	8.19	0.00	0.	0.00	
29	5.400	27.28	0.09	11.00	246.22	1.11	6.46	4.04	6.46	4.04	2.18	0.00	0.00	0.00	8.16	0.00	0.	0.00	
30	5.300	27.30	0.09	10.95	245.61	1.11	6.32	4.01	6.32	4.01	2.15	0.00	0.00	0.00	8.13	0.00	0.	0.00	
31	5.200	27.32	0.09	10.90	245.01	1.11	6.18	3.97	6.18	3.97	2.12	0.00	0.00	0.00	8.10	0.00	0.	0.00	
32	5.100	27.34	0.09	10.85	244.44	1.11	6.05	3.94	6.05	3.94	2.08	0.00	0.00	0.00	8.07	0.00	0.	0.00	
33	5.000	27.36	0.09	10.80	243.88	1.12	5.93	3.90	5.93	3.90	2.05	0.00	0.00	0.00	8.04	0.00	0.	0.00	
34	4.900	27.38	0.09	10.75	243.34	1.12	5.81	3.87	5.81	3.87	2.02	0.00	0.00	0.00	8.01	0.00	0.	0.00	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

35	4.800	27.40	0.09	10.71	242.81	1.12	5.70	3.84	5.70	3.84	2.00	0.00	0.00	0.00	0.00	7.98	0.00	0.	0.00
36	4.700	27.42	0.10	10.66	242.30	1.12	5.59	3.81	5.59	3.81	1.97	0.00	0.00	0.00	0.00	7.95	0.00	0.	0.00
37	4.600	27.44	0.10	10.62	241.80	1.13	5.48	3.78	5.48	3.78	1.94	0.00	0.00	0.00	0.00	7.92	0.00	0.	0.00
38	4.500	27.46	0.10	10.58	241.32	1.13	5.38	3.75	5.38	3.75	1.92	0.00	0.00	0.00	0.00	7.89	0.00	0.	0.00
39	4.400	27.49	0.10	10.54	240.85	1.13	5.29	3.73	5.29	3.73	1.89	0.00	0.00	0.00	0.00	7.86	0.00	0.	0.00
40	4.300	27.51	0.10	10.50	240.39	1.13	5.20	3.70	5.20	3.70	1.87	0.00	0.00	0.00	0.00	7.83	0.00	0.	0.00
41	4.200	27.53	0.10	10.46	239.94	1.13	5.11	3.67	5.11	3.67	1.85	0.00	0.00	0.00	0.00	7.80	0.00	0.	0.00
42	4.100	27.55	0.10	10.42	239.50	1.14	5.03	3.65	5.03	3.65	1.83	0.00	0.00	0.00	0.00	7.77	0.00	0.	0.00
43	4.000	27.57	0.10	10.39	239.08	1.14	4.95	3.63	4.95	3.63	1.81	0.00	0.00	0.00	0.00	7.74	0.00	0.	0.00
44	3.900	27.59	0.10	10.35	238.67	1.14	4.87	3.60	4.87	3.60	1.79	0.00	0.00	0.00	0.00	7.71	0.00	0.	0.00
45	3.800	27.61	0.10	10.32	238.26	1.14	4.80	3.58	4.80	3.58	1.77	0.00	0.00	0.00	0.00	7.68	0.00	0.	0.00
46	3.700	27.63	0.10	10.28	237.87	1.14	4.73	3.56	4.73	3.56	1.75	0.00	0.00	0.00	0.00	7.65	0.00	0.	0.00
47	3.600	27.65	0.10	10.25	237.48	1.14	4.66	3.54	4.66	3.54	1.73	0.00	0.00	0.00	0.00	7.62	0.00	0.	0.00
48	3.500	27.67	0.10	10.22	237.11	1.14	4.60	3.52	4.60	3.52	1.71	0.00	0.00	0.00	0.00	7.59	0.00	0.	0.00
49	3.400	27.69	0.10	10.18	236.75	1.14	4.54	3.50	4.54	3.50	1.70	0.00	0.00	0.00	0.00	7.56	0.00	0.	0.00
50	3.300	27.71	0.10	10.15	236.41	1.14	4.48	3.48	4.48	3.48	1.68	0.00	0.00	0.00	0.00	7.53	0.00	0.	0.00
51	3.200	27.73	0.10	10.13	236.32	1.15	4.42	3.48	4.42	3.48	1.67	0.00	0.00	0.00	0.00	7.50	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 3 SITE 3A - SITE 4

PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU CALIBRATION RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
			deg C	ppt	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL		
52	UPR RCH	0.70410	27.73	0.10	10.13	236.32	1.15	4.42	3.48	4.42	3.48	1.67	0.00	0.00	0.00	7.50	0.00	0.00
53	WSTLD	0.11160	25.22	0.27	19.30	589.70	0.23	5.76	3.75	5.76	3.75	2.55	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO	
	km	km	m³/s	m/s	m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s	
52	3.20	3.10	0.70410	0.0	0.03426	0.03	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.034	
53	3.10	3.00	0.81570	13.7	0.03969	0.03	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.040	
54	3.00	2.90	0.81570	13.7	0.03969	0.03	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.040	
TOT					0.03770	0.09			6166.05	5934.60		20.55				
AVG								1.04	19.78							
CUM						3.28										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	BOD#1 DECAY	BOD#1 SETT	ABOD#1 DECAY	ABOD#1 SETT	BOD#2 DECAY	BOD#2 SETT	ABOD#2 DECAY	BKGD SOD	FULL SOD	CORR SOD	ORGN DECAY	ORGN SETT	NH3 DECAY	NH3 SRCE	DENIT RATE	PO4 1/d/a	ALG PROD	MAC PROD	COLI 1/d/a	NCM DECAY	NCM SETT
		mg/L	1/d/a	1/d/a	1/d/a	1/d/a	1/d/a	1/d/a	1/d/a	1/d/a	*	*	*	1/d/a	1/d/a	*	1/d/a	*	1/d/a	**	**	1/d/a	1/d/a	
52	3.100	7.85	0.86	0.13	0.24	0.00	0.02	0.12	0.00	1.80	1.80	1.80	0.02	0.24	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00
53	3.000	7.84	0.89	0.13	0.24	0.00	0.02	0.12	0.00	1.80	1.80	1.80	0.02	0.24	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00
54	2.900	7.84	0.89	0.14	0.24	0.00	0.02	0.12	0.00	1.81	1.81	1.81	0.03	0.24	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

AVG 20 DEG C RATE	0.76	0.14	0.20	0.00	0.02	0.10	0.00	1.10	0.10	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
* g/m ² /d																	
** mg/L/day																	

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
52	3.100	27.79	0.10	10.21	239.29	1.27	4.38	3.68	4.38	3.68	1.66	0.00	0.00	0.00	10.13	0.00	0.	0.00	
53	3.000	27.84	0.10	11.38	284.45	1.27	4.51	3.86	4.51	3.86	1.76	0.00	0.00	0.00	12.77	0.00	0.	0.00	
54	2.900	27.90	0.10	11.38	284.45	1.40	4.47	4.01	4.47	4.01	1.75	0.00	0.00	0.00	15.40	0.00	0.	0.00	

FINAL REPORT
REACH NO. 4 HEADWATER
SITE 4 - SITE 5

PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU CALIBRATION RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
55	UPR RCH	0.81570	27.90	0.10	11.38	284.45	1.40	4.47	4.01	4.47	4.01	1.75	0.00	0.00	0.00	15.40	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
55	2.90	2.80	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
56	2.80	2.70	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
57	2.70	2.60	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
58	2.60	2.50	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
59	2.50	2.40	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
60	2.40	2.30	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
61	2.30	2.20	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
62	2.20	2.10	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
63	2.10	2.00	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
64	2.00	1.90	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
65	1.90	1.80	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
66	1.80	1.70	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
67	1.70	1.60	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
68	1.60	1.50	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
69	1.50	1.40	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
70	1.40	1.30	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
71	1.30	1.20	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
72	1.20	1.10	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
73	1.10	1.00	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
74	1.00	0.90	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
75	0.90	0.80	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
76	0.80	0.70	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
77	0.70	0.60	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
78	0.60	0.50	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

79	0.50	0.40	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
80	0.40	0.30	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
81	0.30	0.20	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
82	0.20	0.10	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
83	0.10	0.00	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
TOT						1.70		119901.39		82293.30					
AVG					0.01973		1.46	28.38			41.35				
CUM					4.98										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER 1/da	BOD#1 RATE 1/da	BOD#1 DECAY 1/da	ABOD#1 SETT 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECA 1/da	NCM DECA 1/da	NCM SETT 1/da	
55	2.800	7.83	0.56	0.14	0.24	0.00	0.02	0.12	0.00	4.61	4.61	4.61	0.04	0.24	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00	0.00
56	2.700	7.83	0.56	0.15	0.24	0.00	0.02	0.12	0.00	4.62	4.62	4.62	0.05	0.24	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.00	0.00
57	2.600	7.82	0.56	0.15	0.24	0.00	0.02	0.12	0.00	4.63	4.63	4.63	0.05	0.24	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00
58	2.500	7.82	0.56	0.15	0.24	0.00	0.02	0.12	0.00	4.64	4.64	4.64	0.06	0.24	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.00	0.00
59	2.400	7.82	0.56	0.16	0.24	0.00	0.02	0.12	0.00	4.65	4.65	4.65	0.06	0.24	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00
60	2.300	7.81	0.56	0.16	0.24	0.00	0.02	0.12	0.00	4.65	4.65	4.65	0.07	0.24	0.00	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00
61	2.200	7.81	0.56	0.16	0.24	0.00	0.02	0.12	0.00	4.66	4.66	4.66	0.07	0.24	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00
62	2.100	7.81	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.67	4.67	4.67	0.07	0.24	0.00	0.00	0.00	1.21	0.00	0.00	0.00	0.00	0.00	0.00
63	2.000	7.80	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.68	4.68	4.68	0.08	0.24	0.00	0.00	0.00	1.22	0.00	0.00	0.00	0.00	0.00	0.00
64	1.900	7.80	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.69	4.69	4.69	0.08	0.24	0.00	0.00	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00
65	1.800	7.79	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.70	4.70	4.70	0.09	0.24	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00
66	1.700	7.79	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.70	4.70	4.70	0.09	0.24	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00	0.00	0.00
67	1.600	7.79	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.71	4.71	4.71	0.09	0.24	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00
68	1.500	7.78	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.72	4.72	4.72	0.10	0.24	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00	0.00	0.00
69	1.400	7.78	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.73	4.73	4.73	0.10	0.24	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00
70	1.300	7.77	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.74	4.74	4.74	0.10	0.24	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00	0.00	0.00
71	1.200	7.77	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.75	4.75	4.75	0.11	0.24	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00	0.00	0.00
72	1.100	7.77	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.75	4.75	4.75	0.11	0.24	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00	0.00	0.00
73	1.000	7.76	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.76	4.76	4.76	0.11	0.24	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00	0.00	0.00
74	0.900	7.76	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.77	4.77	4.77	0.12	0.24	0.00	0.00	0.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00
75	0.800	7.75	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.78	4.78	4.78	0.12	0.24	0.00	0.00	0.00	1.38	0.00	0.00	0.00	0.00	0.00	0.00
76	0.700	7.75	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.79	4.79	4.79	0.12	0.24	0.00	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.00	0.00
77	0.600	7.75	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.80	4.80	4.80	0.13	0.24	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00	0.00	0.00
78	0.500	7.74	0.56	0.19	0.25	0.00	0.03	0.12	0.00	4.81	4.81	4.81	0.13	0.25	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00	0.00	0.00
79	0.400	7.74	0.56	0.19	0.25	0.00	0.03	0.12	0.00	4.81	4.81	4.81	0.13	0.25	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.00	0.00	0.00
80	0.300	7.73	0.56	0.20	0.25	0.00	0.03	0.12	0.00	4.82	4.82	4.82	0.13	0.25	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.00	0.00
81	0.200	7.73	0.56	0.20	0.25	0.00	0.03	0.12	0.00	4.83	4.83	4.83	0.14	0.25	0.00	0.00	0.00	1.47	0.00	0.00	0.00	0.00	0.00	0.00
82	0.100	7.73	0.56	0.20	0.25	0.00	0.03	0.12	0.00	4.84	4.84	4.84	0.14	0.25	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00	0.00	0.00
83	0.000	7.72	0.57	0.20	0.25	0.00	0.03	0.12	0.00	4.85	4.85	4.85	0.14	0.25	0.00	0.00	0.00	1.49	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II mg/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

55	2.800	27.93	0.10	11.38	284.45	1.45	4.51	3.99	4.51	3.99	1.76	0.00	0.00	0.00	0.00	15.56	0.00	0.	0.00
56	2.700	27.96	0.10	11.38	284.45	1.49	4.54	3.97	4.54	3.97	1.76	0.00	0.00	0.00	0.00	15.72	0.00	0.	0.00
57	2.600	27.99	0.10	11.38	284.45	1.52	4.56	3.95	4.56	3.95	1.76	0.00	0.00	0.00	0.00	15.88	0.00	0.	0.00
58	2.500	28.01	0.10	11.38	284.45	1.55	4.59	3.93	4.59	3.93	1.77	0.00	0.00	0.00	0.00	16.03	0.00	0.	0.00
59	2.400	28.04	0.11	11.38	284.45	1.58	4.61	3.91	4.61	3.91	1.77	0.00	0.00	0.00	0.00	16.19	0.00	0.	0.00
60	2.300	28.07	0.11	11.38	284.45	1.61	4.63	3.89	4.63	3.89	1.77	0.00	0.00	0.00	0.00	16.35	0.00	0.	0.00
61	2.200	28.10	0.11	11.38	284.45	1.64	4.65	3.87	4.65	3.87	1.77	0.00	0.00	0.00	0.00	16.51	0.00	0.	0.00
62	2.100	28.13	0.11	11.38	284.45	1.67	4.67	3.85	4.67	3.85	1.77	0.00	0.00	0.00	0.00	16.67	0.00	0.	0.00
63	2.000	28.16	0.11	11.38	284.45	1.69	4.69	3.82	4.69	3.82	1.77	0.00	0.00	0.00	0.00	16.83	0.00	0.	0.00
64	1.900	28.18	0.11	11.38	284.45	1.71	4.71	3.80	4.71	3.80	1.77	0.00	0.00	0.00	0.00	16.99	0.00	0.	0.00
65	1.800	28.21	0.11	11.38	284.45	1.73	4.73	3.78	4.73	3.78	1.77	0.00	0.00	0.00	0.00	17.14	0.00	0.	0.00
66	1.700	28.24	0.11	11.38	284.45	1.75	4.74	3.76	4.74	3.76	1.77	0.00	0.00	0.00	0.00	17.30	0.00	0.	0.00
67	1.600	28.27	0.11	11.38	284.45	1.77	4.76	3.74	4.76	3.74	1.77	0.00	0.00	0.00	0.00	17.46	0.00	0.	0.00
68	1.500	28.30	0.11	11.38	284.45	1.79	4.77	3.72	4.77	3.72	1.77	0.00	0.00	0.00	0.00	17.62	0.00	0.	0.00
69	1.400	28.32	0.12	11.38	284.45	1.80	4.78	3.70	4.78	3.70	1.77	0.00	0.00	0.00	0.00	17.78	0.00	0.	0.00
70	1.300	28.35	0.12	11.38	284.45	1.82	4.79	3.69	4.79	3.69	1.77	0.00	0.00	0.00	0.00	17.94	0.00	0.	0.00
71	1.200	28.38	0.12	11.38	284.45	1.83	4.81	3.67	4.81	3.67	1.76	0.00	0.00	0.00	0.00	18.10	0.00	0.	0.00
72	1.100	28.41	0.12	11.38	284.45	1.84	4.82	3.65	4.82	3.65	1.76	0.00	0.00	0.00	0.00	18.26	0.00	0.	0.00
73	1.000	28.44	0.12	11.38	284.45	1.85	4.83	3.63	4.83	3.63	1.76	0.00	0.00	0.00	0.00	18.41	0.00	0.	0.00
74	0.900	28.47	0.12	11.38	284.45	1.87	4.83	3.61	4.83	3.61	1.76	0.00	0.00	0.00	0.00	18.57	0.00	0.	0.00
75	0.800	28.49	0.12	11.38	284.45	1.88	4.84	3.59	4.84	3.59	1.75	0.00	0.00	0.00	0.00	18.73	0.00	0.	0.00
76	0.700	28.52	0.12	11.38	284.45	1.89	4.85	3.57	4.85	3.57	1.75	0.00	0.00	0.00	0.00	18.89	0.00	0.	0.00
77	0.600	28.55	0.12	11.38	284.45	1.90	4.86	3.55	4.86	3.55	1.75	0.00	0.00	0.00	0.00	19.05	0.00	0.	0.00
78	0.500	28.58	0.12	11.38	284.45	1.91	4.87	3.53	4.87	3.53	1.74	0.00	0.00	0.00	0.00	19.21	0.00	0.	0.00
79	0.400	28.61	0.13	11.38	284.45	1.91	4.87	3.51	4.87	3.51	1.74	0.00	0.00	0.00	0.00	19.37	0.00	0.	0.00
80	0.300	28.64	0.13	11.38	284.45	1.92	4.88	3.50	4.88	3.50	1.73	0.00	0.00	0.00	0.00	19.52	0.00	0.	0.00
81	0.200	28.66	0.13	11.38	284.45	1.93	4.88	3.48	4.88	3.48	1.73	0.00	0.00	0.00	0.00	19.68	0.00	0.	0.00
82	0.100	28.69	0.13	11.38	284.45	1.94	4.89	3.46	4.89	3.46	1.73	0.00	0.00	0.00	0.00	19.84	0.00	0.	0.00
83	0.000	28.72	0.13	11.38	284.45	1.94	4.89	3.45	4.89	3.45	1.72	0.00	0.00	0.00	0.00	20.00	0.00	0.	0.00

STREAM SUMMARY
HEADWATERPETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU CALIBRATION RUN

TRAVEL TIME = 4.98 DAYS

MAXIMUM EFFLUENT = 13.68 PERCENT

FLOW	=	0.45921	TO	0.81570	m ³ /s
DISPERSION	=	0.2440	TO	1.1670	m ² /s
VELOCITY	=	0.01622	TO	0.03969	m/s
DEPTH	=	0.88	TO	1.46	m
WIDTH	=	19.78	TO	31.70	m
BOD DECAY	=	0.11	TO	0.20	per day
NH3 DECAY	=	0.00	TO	0.00	per day
SOD	=	1.80	TO	5.53	g/m ² /d
NH3 SOURCE	=	0.00	TO	0.00	g/m ² /d
REAERATION	=	0.56	TO	0.92	per day
BOD SETTLING	=	0.24	TO	0.25	per day
NBOD DECAY	=	0.02	TO	0.14	per day
NBOD SETTLING	=	0.24	TO	0.25	per day
TEMPERATURE	=	27.11	TO	28.72	deg C
DISSOLVED OXYGEN	=	1.08	TO	1.94	mg/L

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....EXECUTION COMPLETED

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Bayou Petit Caillou Calibration Overlay File

```
STATION 1 KILOMETER 8.3
 3          11.5
 4          251.0
 5          1.1
 6          3.65
13          11.3
16          4.07
18          2.30
STATION 2 KILOMETER 6.2
 3          5.8
 4          196.0
 5          1.1
 6          7.85
13          8.4
16          4.29
18          2.55
31          0.4592142
33          0.978408
34          28.95600
STATION 3A KILOMETER 3.2
 3          9.3
 4          220.0
 5          1.1
 6          3.73
13          7.5
16          3.44
18          1.57
31          0.7041032
33          0.883920
34          31.6992
STATION 4 KILOMETER 2.9
 3          9.5
 4          221.0
 5          1.4
 6          4.64
13          15.4
16          19.39
18          1.81
31          0.8157413
33          1.039368
34          19.78152
STATION 5 KILOMETER 0.01
 3          12.9
 4          247.0
 5          1.90
 6          4.89
13          21.6
16          3.34
18          1.73
33          1.456944
34          28.37688
MRK 6.2      Begin Reach 2
MRK 3.2      Begin Reach 3
MRK 2.9      Begin Reach 4
MRK 3.0      St. Louis Canal
STD 5 5.0    8.3      0.0
END
```

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix A4 – Calib Justification

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	0		This was done to allow dispersion in the model but not to force the bottom element through the boundary conditions.
KL MINIMUM	0.7	m/day	The minimum KL of 2.3 ft/day converted to 0.70 m/day.
K2 MAXIMUM	25	1/day at 20 deg C	EPA Policy in the absence of a measured value.
HYDRAULIC CALCULATION METHOD	2		The low slopes in this waterbody cause a substantial amount of water to be present during critical flow conditions, making the Leopold relationships inaccurate. This method allows the model to predict a more accurate depth and width during low flow conditions.
SETTLING RATE UNITS	2		By making the settling rate a velocity the rate becomes dependent upon the depth.

DATA TYPE 8 - REACH IDENTIFICATION DATA					
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, kilometers
1	PC	Headwater to Site 2	8.30	6.20	0.1000
2	PC	Site 2 to Site 3A	6.20	3.20	0.1000
3	PC	Site 3A to Site 4	3.20	2.90	0.1000
4	PC	Site 4 to Site 5	2.90	0.00	0.1000

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Data Type 9 – Advective Hydraulic Coefficients											
Reach	Name	Width Coeff "a"	Width Exp "b"	Data Source	Width Const "c"	Data Source	Depth Coeff "d"	Depth Exp "e"	Data Source	Depth Const "f"	Data Source
1	Headwater to Site 2	0	0	Widths and Depths assumed constant with changes in flow.	28.956	Site 2 Cross Section	0	0	Widths and Depths assumed constant with changes in flow.	0.978	Site 2 Cross Section
2	Site 2 to Site 3A	0	0	Widths and Depths assumed constant with changes in flow.	31.699	Site 3A Cross Section	0	0	Widths and Depths assumed constant with changes in flow.	0.884	Site 3A Cross Section
3	Site 3A to Site 4	0	0	Widths and Depths assumed constant with changes in flow.	19.782	Site 4 Cross Section	0	0	Widths and Depths assumed constant with changes in flow.	1.039	Site 4 Cross Section
4	Site 4 to Site 5	0	0	Widths and Depths assumed constant with changes in flow.	28.377	Site 5 Cross Section	0	0	Widths and Depths assumed constant with changes in flow.	1.457	Site 5 Cross Section

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS		
Reach	Name	Dispersion Coeff. "a"	Data Source	
1	Headwater to Site 2	0.244	Dispersion Calculated from dye study therefore assumed E = a	
2	Site 2 to Site 3A	0.244	Dispersion Calculated from dye study therefore assumed E = a	
3	Site 3A to Site 4	0.244	Dispersion Calculated from dye study therefore assumed E = a	
4	Site 4 to Site 5	1.167	Dispersion Calculated from dye study therefore assumed E = a	

DATA TYPE 11 - INITIAL CONDITIONS									
Reach	Name	Temp	Temp Justification	Salinity	Salinity Justification	DO	DO Justification	Chl A	Chl A Justification
1	Headwater to Site 2	27.76	Site 1 Cont Mont	0.12	Site 1 Insitu	0.815	Site 1 Cont Mont	11.3	Site 1 Lab Data
2	Site 2 to Site 3A	27.11	Site 2 Cont Mont	0.09	Site 2 Insitu	0.461	Site 2 Cont Mont	8.4	Site 2 Lab Data
3	Site 3A to Site 4	27.73	Site 3A Cont Mont	0.10	Site 3A Insitu	1.263	Site 3A Cont Mont	7.5	Site 3A Lab Data
4	Site 4 to Site 5	27.90	Site 4 Cont Mont	0.10	Site 4 Insitu	1.507	Site 4 Cont Mont	15.4	Site 4 Lab Data

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			
REACH	NAME	K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source
1	Headwater to Site 2	11	Texas Equation	3.1	Calibration
2	Site 2 to Site 3A	11	Texas Equation	3.4	Calibration
3	Site 3A to Site 4	11	Texas Equation	1.1	Calibration
4	Site 4 to Site 5	11	Texas Equation	2.8	Calibration

DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			
CBOD 1 Decay	CBOD 1 Decay Justification	CBOD 2 Decay	CBOD 2 Decay Justification
0.2146875	Average (PC1 + PC2)	0.03049479	Average (PC1 + PC2)
0.1430729	Average (PC2 + PC3A)	0.03049479	Average (PC2 + PC3A)
0.1402083	Average (PC3A + PC4)	0.01959103	Average (PC3A + PC4)
0.13734375	Average (PC4 + PC5)	0.01952737	Average (PC4 + PC5)

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			
NAME	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source
Headwater to Site 2	0.2	0.1	Calibration
Site 2 to Site 3A	0.2	0.1	Calibration
Site 3A to Site 4	0.2	0.1	Calibration
Site 4 to Site 5	0.2	0.1	Calibration

DATA TYPE 13 - NBOD COEFFICIENTS			
Reach	Name	NBOD Decay	NBOD Decay Justification
1	Headwater to Site 2	0.12	Average (PC1 + PC2)
2	Site 2 to Site 3A	0.12	Average (PC2 + PC3A)
3	Site 3A to Site 4	0.10	Average (PC3A + PC4)
4	Site 4 to Site 5	0.13	Average (PC4 + PC5)

DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, m ³ for ft ³	Incr. Inflow, m ³ for ft ³	Data Source	Temp, deg C, Cont. Mont.	Sal., ppt, Insitu	Chlorides Lab Data	Conductivity Insitu	Data Source
1	Headwater to Site 2								
2	Site 2 to Site 3A		0.24489	PC 3A - PC 2	27.423	0.095	7.55	206.2	Average PC2 + PC3A
3	Site 3A to Site 4								
4	Site 4 to Site 5								

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

DATA TYPES 17 - INCREMENTAL DATA FOR DO, UCBOD1, UCBOD2, AND NBOD

Reach	Reach Name	DO, mg/l, Cont. Mont.	Data Source	UCBOD1 mg/l	UCBOD2 mg/l	NBOD, mg/l	Data Source
1	Headwater to Site 2						
2	Site 2 to Site 3A	2	Standard Practice for Groundwater Inflow	5.79408665	3.86747098	2.0635878	Average PC2 + PC3A
3	Site 3A to Site 4						
4	Site 4 to Site 5						

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day or lb/day	NBOD, kg/day or lb/day	UCBOD2, kg/day or lb/day	Data Source
1	Headwater to Site 2	2.10	320.0	47.00	50.0	Calibration
2	Site 2 to Site 3A	3	0.0	0.00	0.0	Calibration
3	Site 3A to Site 4	0.3	0.0	0.00	40.0	Calibration
4	Site 4 to Site 5	2.9	270.0	70.00	25.0	Calibration

DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES								
Headwater Name	Element No.	Logical Unit Number	Headwater Flow, cms	Temp, deg C, Cont. Mont.	Salinity (Insitu)	Chlorides (Lab Data)	Conductivity (Insitu)	Data Source
Petit Caillou Headwater	1		0.45921	27.761	0.12	11.5	252.4	PC 1

DATA TYPES 21 - HEADWATER DATA FOR DO, UCBOD1, UCBOD2, AND NBOD						
Headwater Name	Dissolved Oxygen, mg/L, Cont. Mont.	Data Source	UCBOD1, mg/l	UCBOD2, mg/l	NBOD, mg/l	Data Source
Petit Caillou Headwater	1.1	PC 1 Continuous Monitoring Minimum DO + 1	3.64	4.07	2.3	PC 1 Lab Data

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPES 22 - HEADWATER DATA FOR CHLOROPHYL A

Headwater Name	Chlorophyll a, ug/L	Date Source
Petit Caillou Headwater	11.3	PC 1 Lab Data

DATA TYPES 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES

Wasteload / Withdrawal Name	EL #	Flow, cms	Temperature, deg C	Salinity	Chlorides	Conductivity	Data Source
St. Louis Canal	53	0.1116	25.22	0.27	19.3	589.7	PC 3 Insitu

DATA TYPES 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN

Wasteload / Withdrawal Name	EL #	DO, mg/l	UCBOD1, mg/l	UNBOD, mg/l	UCBOD2, mg/l	Data Source
St. Louis Canal	53	0.23	5.76	2.55	3.75	PC 3 Insitu

DATA TYPES 27 - LOWER BOUNDARY CONDITIONS

Survey Site Name:

Parameter	Value	Units	Data Source
TEMPERATURE	28.72		Site 6 Continuous Monitoring Mean Value
SALINITY	0.13		Site 6 Insitu
CHLORIDES	17.9		Site 6 Water Quality Lab
CONDUCTIVITY	278.3		Site 6 Insitu
DISSOLVED OXYGEN	1.61		Site 6 Continuous Monitoring Mean Value
BIOCHEMICAL OXYGEN DEMAND 1	4.63		Site 6 Water Quality Lab
BIOCHEMICAL OXYGEN DEMAND 2	3.59		Site 6 Water Quality Lab
NBOD	2.27		Site 6 Water Quality Lab
CHLOROPHYLL A	20		Site 6 Water Quality Lab

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix A5 – Calib Loading

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

REACH NUMBER & DESCRIPTION	Calibration Model Reach Length (km)	Calibration Model Average Reach Width (meters)	Calibration Model UCBOD1 Nonpoint loading (kg/day)	Calibration Model UCBOD2 Nonpoint loading (kg/day)	Calibration Model Total UCBOD Nonpoint loading (kg/day)	Calibration Model UNBOD Nonpoint loading (kg/day)	Calibration Model Total UCBOD Nonpoint loading (gm O ₂ /m ² /day)	Calibration Model Total UNBOD Nonpoint loading (gm O ₂ /m ² /day)	Calibration Model SOD (gm O ₂ /m ² /day)
	A	B	C1	C2	C3	D3	E3 = C3 / (A x B)	F3 = D3 / (A x B)	G
REACH 1: Headwater - Site 2	2.10	28.96	320.00	50.00	370	47.0	6.085	0.773	3.10
REACH 2: Site 2 - Site 3A	3.00	31.70	0.00	0.00	0	0.0	0.000	0.000	3.40
REACH 3: Site 3A - Site 4	0.30	19.78	0.00	40.00	40	0.0	6.740	0.000	1.10
REACH 4: Site 4 - Site 5	2.90	28.38	270.00	25.00	295	70.0	3.585	0.851	2.80

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix A6 – Calib Sensitivity

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Parameter	Positive Changes in Parameter			Negative Changes in parameter		
	% change	Minimum DO (mg/l)	Percentage Difference	% change	Minimum DO (mg/l)	Percentage Difference
Stream Baseflow	30	1.1	1.5	-30	0.98	-9.5
Initial Chlorophyll a	30	1.1	1.5	-30	0.99	-8.5
Stream Velocity	30	1.06	-2.2	-30	1.1	1.5
Initial Temperature	2	0.68	-37.5	-2	1.1	1.5
BOD Decay Rate	30	0.95	-12.0	-30	1.1	1.5
BOD2 Aerobic Decay Rate	30	1.07	-1.4	-30	1.09	1.0
BOD Settling Rate	30	1.1	1.5	-30	1.05	-2.7
BOD2 Settling Rate	30	1.08	0	-30	1.08	0
NBOD Decay Rate	30	1.08	-0.5	-30	1.09	0.2
NBOD Settling Rate	30	1.08	-0.2	-30	1.08	-0.1
Benthal Demand	30	0.12	-89.1	-30	1.1	1.5
Stream Dispersion	30	1.08	0	-30	1.08	0
Stream Reaeration	30	1.1	1.5	-30	0	-100
Headwater Flow	30	1.1	1.5	-30	0.98	-9.3
Headwater DO	30	1.1	1.5	-30	0.84	-22.6
Headwater BOD	30	1.03	-5.2	-30	1.1	1.5
Headwater BOD2	30	1.07	-1.1	-30	1.1	1.2
Headwater NBOD	30	1.08	-0.4	-30	1.09	0.4
Stream Depth	30	1.05	-3.2	-30	1.1	1.5
Incremental Inflow	30	1.08	0.1	-30	1.08	-0.3
Incremental Outflow	30	1.08	0	-30	1.08	0
Incremental Temperature	2	1.08	0	-2	1.08	0
Incremental DO	30	1.08	0.1	-30	1.06	-2.4
Incremental BOD	30	1.08	0	-30	1.08	-0.3
Incremental BOD2	30	1.08	0	-30	1.08	0
Incremental NBOD	30	1.08	0	-30	1.08	0
Wasteload Flow	30	1.08	0	-30	1.08	0
Wasteload Temperature	2	1.08	0	-2	1.08	0
Wasteload DO	30	1.08	0	-30	1.08	0
Wasteload BOD	30	1.08	0	-30	1.08	0
Wasteload BOD2	30	1.08	0	-30	1.08	0
Wasteload NBOD	30	1.08	0	-30	1.08	0
Lower Boundary Temperature	2	1.08	0	-2	1.08	0
Lower Boundary DO	30	1.08	0	-30	1.08	0
Lower Boundary BOD	30	1.08	0	-30	1.08	0
Lower Boundary BOD2	30	1.08	0	-30	1.08	0
Lower Boundary NBOD	30	0.97	0	-30	1.08	0

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

BAYOU PETIT CAILLOU SENSITIVITY ANALYSIS INPUT DATA SET

CNTROL01 PETIT CAILLOU WATERSHED MODEL
CNTROL02 PETIT CAILLOU SENSITIVITY RUN
CNTROL04 YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10 NO PHOSPHORUS
MODOPT11 NO CHLOROPHYLL A
MODOPT12 NO MACROPHYTES
MODOPT13 NO COLIFORM
ENDATA02
PROGRAM KL MINIMUM = 0.7
PROGRAM INHIBITION CONTROL VALUE = 3.
PROGRAM K2 MAXIMUM = 25.0
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
PROGRAM SETTLING RATE UNITS = 2.
PROGRAM OCEAN EXCHANGE RATIO = 0.0
ENDATA03
!Temperature Correction Constants
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
! R# ID SITE NAME RKM RKM LENGTH
REACH ID 1 PC HEADWATER - SITE 2 8.3 6.2 0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

REACH ID	2	PC SITE 2 - SITE 3A	6.2	3.2	0.1
REACH ID	3	PC SITE 3A - SITE 4	3.2	2.9	0.1
REACH ID	4	PC SITE 4 - SITE 5	2.9	0.0	0.1

ENDATA08

!Advection Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

		a	b	c	d	e	f
		WIDTH	WIDTH	WIDTH	DEPTH	DEPTH	DEPTH
	R#	COEFF	EXP	CONST	COEFF	EXP	CONST SLOPE MANNING
HYDR-1	1	0.00	0.00	28.956	0.00	0.00	0.978
HYDR-1	2	0.00	0.00	31.699	0.00	0.00	0.884
HYDR-1	3	0.00	0.00	19.782	0.00	0.00	1.039
HYDR-1	4	0.00	0.00	28.377	0.00	0.00	1.457

ENDATA09

!Dispersive Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

		TIDAL				
	R#	RANGE	a	b	c	d
HYDR-2	1	0.0	0.244	0.0	0.0	0.0
HYDR-2	2	0.0	0.244	0.0	0.0	0.0
HYDR-3	3	0.0	0.244	0.0	0.0	0.0
HYDR-4	4	0.0	1.167	0.0	0.0	0.0

ENDATA10

!Initial Conditions

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----*****

	R#	TEMP	SALINITY	DO	NH3 N	NIT	NIT	PHOS	CHL A	MACROPHYTES
INITIAL	1	27.761	0.12	0.82					11.30	
INITIAL	2	27.113	0.09	0.46					8.40	
INITIAL	3	27.733	0.10	1.26					7.50	
INITIAL	4	27.901	0.10	1.51					15.40	

ENDATA11

!Reaeration, Sediment Oxygen Demand and BOD Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8-----9

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****----- *****-----*****-----*****-----*****-----*****
!
!          R#    REA   KL MIN           SOD   DECAY  SETT           BOD 1   BOD 1           BOD 2   BOD 2
!
COEF-1     1    11.00  0.70 0.0    0.0    3.10  0.2147 0.20    0.0    0.0305  0.1
COEF-1     2    11.00  0.70 0.0    0.0    3.40  0.1431 0.20    0.0    0.0305  0.1
COEF-1     3    11.00  0.70 0.0    0.0    1.10  0.1402 0.20    0.0    0.0196  0.1
COEF-1     4    11.00  0.70 0.0    0.0    2.80  0.1373 0.20    0.0    0.0195  0.1
ENDATA12
!Nitrogen and Phosphorus Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!          R#    NBOD   NBOD           NBOD   NBOD
!
COEF-2     1    0.1247  0.20
COEF-2     2    0.1184  0.20
COEF-2     3    0.1047  0.20
COEF-2     4    0.1253  0.20
ENDATA13
ENDATA14
!Coliform and Nonconservative Cofficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!          R#    OUTFLOW   INFLOW   TEMP    SALINITY  CHLORIDE  COND
!
INCR-1     1      0.0    0.0000  00.000    0.0      0.00      0.0
INCR-1     2      0.0    0.24489  27.423    0.095    7.55    206.2
INCR-1     3      0.0    0.0000  00.000    0.0      0.00      0.0
INCR-1     4      0.0    0.0000  00.000    0.0      0.00      0.0
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
!
*** -----*****-----*****-----*****-----*****
!
!      R#      DO      BOD 1      NBOD      NH3 N      NIT NIT      BOD 2
INCR-2      1      0.00      0.00      0.00
INCR-2      2      2.00      5.79      2.06
INCR-2      3      0.00      0.00      0.00
INCR-2      4      0.00      0.00      0.00
ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****
!
!      R#      PHOSPH      CHL A      COLIFORM NONCONSERVATIVE
INCR-3      1      0.000
INCR-3      2      0.000
INCR-3      3      0.000
INCR-3      4      0.000
ENDATA18

!Nonpoint Source Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****-----*****
!
!      R#      BOD 1      NBOD      COLIFORM NONCONS      DO      BOD 2
NONPOINT     1      320.0      47.0      0.0      0.0000      0.0      50.00
NONPOINT     2      0.0      0.0      0.0      0.0000      0.0      0.00
NONPOINT     3      0.0      0.0      0.0      0.0000      0.0      40.00
NONPOINT     4      270.0      70.0      0.0      0.0000      0.0      25.00
ENDATA19

!Headwater Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** ----- *** -----*****-----*****-----*****
!
!      E#      NAME          FLOW      TEMP      SALIN      CHLORIDE      COND
HDWTR-1     1      HEADWATER      0.      0.45921      27.761      0.12      11.5      252.4
ENDATA20

!Headwater Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****-----*****
!
!      E#      DO      BOD 1      NBOD      NH3 N      NIT NIT      BOD 2
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

HDWTR-2 1 1.10 3.64 2.30 0.00 0.00 4.07

ENDATA21

!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! ***** -----*****-----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

HDWTR-3 1 11.3

ENDATA22

ENDATA23

!Wasteload Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! ***** -----*****-----*****-----*****-----*****-----*

! E# NAME FLOW TEMP SALINITY CHLORIDE COND

WSTLD-1 53 ST. LOUIS CANAL 0.1116 25.22 .27 19.3 589.7

ENDATA24

!Wasteload Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! ***** -----*****-----*****-----*****-----*****-----*

! E# DO BOD 1 NBOD NH3 N NIT NIT BOD 2

WSTLD-2 53 0.23 5.76 2.55 0.00 0.00 3.75

ENDATA25

!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! ***** -----*****-----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

WSTLD-3 53

ENDATA26

LOWER BC TEMPERATURE = 28.72

LOWER BC SALINITY = 0.13

LOWER BC CONSERVATIVE MATERIAL I = 17.90

LOWER BC CONSERVATIVE MATERIAL II = 278.30

LOWER BC DISSOLVED OXYGEN = 1.61

LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 4.63

LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND = 3.59

LOWER BC CHLOROPHYLL A = 20.00

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

LOWER BC NBOD = 2.27
ENDATA27
! Dam Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
! *
ENDATA28
SENSITIV BASEFLOW 30 -30
SENSITIV CHLOR A 30 -30
SENSITIV VELOCITY 30 -30
SENSITIV TEMPERAT 2 -2
SENSITIV BOD DECA 30 -30
SENSITIV BOD2 DEC 30 -30
SENSITIV BOD SETT 30 -30
SENSITIV BOD2 SET 30 -30
SENSITIV NBOD DEC 30 -30
SENSITIV NBOD SET 30 -30
SENSITIV BENTHAL 30 -30
SENSITIV DISPERSI 30 -30
SENSITIV REAERATI 30 -30
SENSITIV HDW FLOW 30 -30
SENSITIV HDW DO 30 -30
SENSITIV HDW BOD 30 -30
SENSITIV HDW BOD2 30 -30
SENSITIV HDW NBOD 30 -30
SENSITIV DEPTH 30 -30
SENSITIV INC INFL 30 -30
SENSITIV INC OUTF 30 -30
SENSITIV INC TEMP 2 -2
SENSITIV INC DO 30 -30
SENSITIV INC BOD 30 -30
SENSITIV INC BOD2 30 -30
SENSITIV INC NBOD 30 -30
SENSITIV WSL FLOW 30 -30
SENSITIV WSL TEMP 2 -2
SENSITIV WSL DO 30 -30
SENSITIV WSL BOD 30 -30
SENSITIV WSL BOD2 30 -30
SENSITIV WSL NBOD 30 -30

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

```
SENSITIV LBC TEMP      2      -2
SENSITIV LBC DO       30     -30
SENSITIV LBC BOD      30     -30
SENSITIV LBC BOD2     30     -30
SENSITIV LBC NBOD     30     -30
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 4                               INCREMENT = 0.1
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!      * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
PLOT RCH  1  2  3  4
ENDATA30
OVERLAY 1 pcaiov1.txt :MAINSTEM
ENDATA31
```

BAYOU PETIT CAILLOU SENSITIVITY ANALYSIS OUTPUT DATA SET

LA-QUAL Version 6.10
Louisiana Department of Environmental Quality

Input file is D:\Petit Caillou\120503\Input Files\pcaisensi.txt
Output produced at 08:41 on 01/05/2005

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
TITLE01	PETIT CAILLOU WATERSHED MODEL
TITLE02	PETIT CAILLOU SENSITIVITY RUN
CNTROL04 YES	METRIC UNITS

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION
-----------	--------------

MODOPT01 NO	TEMPERATURE	
MODOPT02 NO	SALINITY	
MODOPT03 YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04 YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05 YES	DISSOLVED OXYGEN	
MODOPT06 YES	BOD1 BIOCHEMICAL OXYGEN DEMAND	
MODOPT07 YES	BOD2 BIOCHEMICAL OXYGEN DEMAND	
MODOPT08 YES	NBOD OXYGEN DEMAND	
MODOPT10 NO	PHOSPHORUS	
MODOPT11 NO	CHLOROPHYLL A	
MODOPT12 NO	MACROPHYTES	
MODOPT13 NO	COLIFORM	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

ENDATA02

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)
PROGRAM	K2 MAXIMUM	= 25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	= 2.00000 (values entered as per day)
PROGRAM	OCEAN EXCHANGE RATIO	= 0.00000

ENDATA03

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE DESCRIPTION OF CONSTANT VALUE

ENDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH	END REACH	ELEM LENGTH	REACH LENGTH	ELEMS PER RCH	BEGIN ELEM	END ELEM	
				km	km	km	km	NUM	NUM		
REACH ID	1	PC	HEADWATER - SITE 2	8.30	TO	6.20	0.1000	2.10	21	1	21
REACH ID	2	PC	SITE 2 - SITE 3A	6.20	TO	3.20	0.1000	3.00	30	22	51
REACH ID	3	PC	SITE 3A - SITE 4	3.20	TO	2.90	0.1000	0.30	3	52	54
REACH ID	4	PC	SITE 4 - SITE 5	2.90	TO	0.00	0.1000	2.90	29	55	83

ENDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
HYDR-1	1	PC	0.000	0.000	28.956	0.000	0.000	0.978	0.00000	0.000
HYDR-1	2	PC	0.000	0.000	31.699	0.000	0.000	0.884	0.00000	0.000
HYDR-1	3	PC	0.000	0.000	19.782	0.000	0.000	1.039	0.00000	0.000

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

HYDR-1	4	PC	0.000	0.000	28.377	0.000	0.000	1.457	0.00000	0.000
ENDATA09										

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"		
HYDR		1	PC	0.00	0.244	0.000	0.000	0.000		
HYDR		2	PC	0.00	0.244	0.000	0.000	0.000		
HYDR		3	PC	0.00	0.244	0.000	0.000	0.000		
HYDR		4	PC	0.00	1.167	0.000	0.000	0.000		
ENDATA10										

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL		1	PC	27.76	0.12	0.82	0.00	0.00	0.00	11.30	0.00
INITIAL		2	PC	27.11	0.09	0.46	0.00	0.00	0.00	8.40	0.00
INITIAL		3	PC	27.73	0.10	1.26	0.00	0.00	0.00	7.50	0.00
INITIAL		4	PC	27.90	0.10	1.51	0.00	0.00	0.00	15.40	0.00
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD TYPE	RCH NUM	RCH ID	K2 OPT	K2 "A"	K2 "B"	K2 "C"	BKGRND SOD g/m ² /d	BOD DECAY per day	BOD SETT m/d	BOD TO SOD	ANAER BOD2 DECAY per day	BOD2 SETT m/d	BOD2 TO SOD	ANAER BOD2 DECAY per day	
COEF-1	1	PC	11 TEXAS	0.700	0.000	0.000	3.100	0.215	0.200	0.000	0.000	0.031	0.100	0.000	0.000
COEF-1	2	PC	11 TEXAS	0.700	0.000	0.000	3.400	0.143	0.200	0.000	0.000	0.031	0.100	0.000	0.000
COEF-1	3	PC	11 TEXAS	0.700	0.000	0.000	1.100	0.140	0.200	0.000	0.000	0.020	0.100	0.000	0.000
COEF-1	4	PC	11 TEXAS	0.700	0.000	0.000	2.800	0.137	0.200	0.000	0.000	0.020	0.100	0.000	0.000
ENDATA12															

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	NBOD DECA	NBOD SETT	ORGN TO NH3	CONV SRCE	NH3 DECA	NH3 SRCE	PHOS SRCE	DENIT RATE
COEF-2		1	PC	0.125	0.200	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2		2	PC	0.118	0.200	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2		3	PC	0.105	0.200	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2		4	PC	0.125	0.200	0.000	0.000	0.000	0.000	0.000	0.000
ENDATA13											

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP
ENDATA14											

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	COLIFORM	NCM	NCM	NCM CONV
------	------	-------	----	----------	-----	-----	----------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

DIE-OFF DECAY SETT TO SOD

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	PC	0.00000	0.24489	27.42	0.09	7.55	206.20	0.08163	0.00000
INCR-1	3	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	4	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2		
INCR-2	1	PC	0.00	0.00	0.00	0.00	0.00	
INCR-2	2	PC	2.00	5.79	2.06	0.00	0.00	3.87
INCR-2	3	PC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4	PC	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM		
INCR-3	1	PC	0.00	0.00	0.00	0.00	0.00	
INCR-3	2	PC	0.00	0.00	0.00	0.00	0.00	
INCR-3	3	PC	0.00	0.00	0.00	0.00	0.00	
INCR-3	4	PC	0.00	0.00	0.00	0.00	0.00	

ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	PC	320.00	47.00	0.00	0.00	0.00	50.00
NONPOINT	2	PC	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	PC	0.00	0.00	0.00	0.00	0.00	40.00
NONPOINT	4	PC	270.00	70.00	0.00	0.00	0.00	25.00

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
HDWTR-1	1	HEADWATER	0	0.45921	16.215	27.76	0.12	11.500	252.000

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
-----------	---------	------	------------	---------------	--------------	------	------	---------------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

HDWTR-2	1	HEADWATER	1.10	3.64	2.30	0.00	0.00	4.07
ENDATA21								

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
-----------	---------	------	--------------	---------------	--------------	-------------

HDWTR-3	1	HEADWATER	0.00	11.30	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
-----------	---------------------	-------------------	----------------	------

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
-----------	---------	-------	------	--------------	-------------	-------------	---------------	--------------	--------------	---------------

WSTLD-1	53	3.10	ST. LOUIS CANAL	0.11160	3.94068	2.547	25.22	0.27	19.300	589.700
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	% NITRIF	mg/L	BOD#2 mg/L
-----------	---------	------	------------	-------------	---------------	--------------	-------------	------	---------------

WSTLD-2	53	ST. LOUIS CANAL	0.23	5.76	0.00	2.55	0.00	0.00	3.75
ENDATA25									

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
-----------	---------	------	--------------	---------------	--------------	-------------

WSTLD-3	53	ST. LOUIS CANAL	0.00	0.00	0.00	0.00
ENDATA26						

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
-----------	-------------	---------------

LOWER BC	TEMPERATURE	= 28.720 deg C
LOWER BC	SALINITY	= 0.130 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 17.900 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 278.300 MG/L
LOWER BC	DISSOLVED OXYGEN	= 1.610 mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 4.630 mg/L
LOWER BC	BOD2 BIOCHEMICAL OXYGEN DEMAND	= 3.590 mg/L
LOWER BC	CHLOROPHYLL A	= 20.000 µg/L
LOWER BC	NBOD	= 2.270 mg/L
ENDATA27		

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE ELEMENT NAME EQN "A" "B" "H"

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSITIV	BASEFLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	CHLOR A	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	VELOCITY	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	TEMPERAT	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD DECA	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD2 DEC	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD SETT	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BOD2 SET	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NBOD DEC	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	NBOD SET	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	BENTHAL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	DISPERSI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	REAERATI	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW BOD2	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	HDW NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	DEPTH	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC INFL	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC OUTF	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC BOD2	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	INC NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL FLOW	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL BOD2	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	WSL NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC TEMP	2.0	-2.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC DO	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC BOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC BOD2	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	LBC NBOD	30.0	-30.0	0.0	0.0	0.0	0.0	0.0	0.0

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

NUMBER OF PLOTS = 1
 NUMBER OF REACHES IN PLOT 1 = 4
 PLOT RCH 1 2 3 4
 ENDTADA30

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

OVERLAY 1 pcaiov1.txt :MAINSTEM
 ENDDATA31

.....NO ERRORS DETECTED IN INPUT DATA
HYDRAULIC CALCULATIONS COMPLETED
TRIDIAGONAL MATRIX TERMS INITIALIZED
OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
CONSTITUENT CALCULATIONS COMPLETED
GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 21

FINAL REPORT HEADWATER PETIT CAILLOU WATERSHED MODEL
 REACH NO. 1 HEADWATER - SITE 2 PETIT CAILLOU SENSITIVITY RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.45921	27.76	0.12	11.50	252.00	1.10	3.64	4.07	3.64	4.07	2.30	0.00	0.00	0.00	11.30	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISFRSN m²/s	MEAN VELO m/s
1	8.30	8.20	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
2	8.20	8.10	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
3	8.10	8.00	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
4	8.00	7.90	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
5	7.90	7.80	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
6	7.80	7.70	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
7	7.70	7.60	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
8	7.60	7.50	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
9	7.50	7.40	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
10	7.40	7.30	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
11	7.30	7.20	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
12	7.20	7.10	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
13	7.10	7.00	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
14	7.00	6.90	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
15	6.90	6.80	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
16	6.80	6.70	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
17	6.70	6.60	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
18	6.60	6.50	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
19	6.50	6.40	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
20	6.40	6.30	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016
21	6.30	6.20	0.45921	0.0	0.01622	0.07	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.016

TOT

1.50

59469.85

60807.61

86

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

AVG		0.01622		0.98	28.96		28.32
CUM			1.50				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da			
1	8.200	7.86	0.83	0.17	0.24	0.00	0.02	0.12	0.00	5.04	5.04	5.04	0.02	0.24	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00		
2	8.100	7.86	0.83	0.17	0.24	0.00	0.02	0.12	0.00	5.03	5.03	5.03	0.02	0.24	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00		
3	8.000	7.87	0.83	0.18	0.24	0.00	0.02	0.12	0.00	5.02	5.02	5.02	0.02	0.24	0.00	0.00	0.00	0.77	0.00	0.00	0.00	0.00	0.00	0.00		
4	7.900	7.87	0.83	0.18	0.24	0.00	0.03	0.12	0.00	5.01	5.01	5.01	0.02	0.24	0.00	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00		
5	7.800	7.88	0.83	0.18	0.24	0.00	0.03	0.12	0.00	5.00	5.00	5.00	0.02	0.24	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00		
6	7.700	7.88	0.83	0.18	0.24	0.00	0.03	0.12	0.00	5.00	5.00	5.00	0.02	0.24	0.00	0.00	0.00	0.74	0.00	0.00	0.00	0.00	0.00	0.00		
7	7.600	7.89	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.99	4.99	4.99	0.02	0.24	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00		
8	7.500	7.89	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.98	4.98	4.98	0.02	0.24	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00		
9	7.400	7.89	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.97	4.97	4.97	0.02	0.24	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00		
10	7.300	7.90	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.96	4.96	4.96	0.02	0.24	0.00	0.00	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00		
11	7.200	7.90	0.82	0.18	0.24	0.00	0.03	0.12	0.00	4.95	4.95	4.95	0.02	0.24	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00		
12	7.100	7.91	0.82	0.17	0.24	0.00	0.03	0.12	0.00	4.94	4.94	4.94	0.02	0.24	0.00	0.00	0.00	0.68	0.00	0.00	0.00	0.00	0.00	0.00		
13	7.000	7.91	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.93	4.93	4.93	0.02	0.24	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00		
14	6.900	7.92	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.92	4.92	4.92	0.02	0.24	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00		
15	6.800	7.92	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.91	4.91	4.91	0.02	0.24	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00	0.00		
16	6.700	7.93	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.90	4.90	4.90	0.02	0.24	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00		
17	6.600	7.93	0.82	0.17	0.24	0.00	0.02	0.12	0.00	4.89	4.89	4.89	0.02	0.24	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00		
18	6.500	7.93	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.88	4.88	4.88	0.02	0.24	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	0.00		
19	6.400	7.94	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.87	4.87	4.87	0.02	0.24	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.00		
20	6.300	7.94	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.86	4.86	4.86	0.02	0.24	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00		
21	6.200	7.95	0.82	0.16	0.24	0.00	0.02	0.12	0.00	4.85	4.85	4.85	0.02	0.24	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00		
Avg	20	DEG C	RATE	0.72	0.21	0.20	0.00	0.03	0.10	0.00	3.10			0.12	0.20	0.00	0.00	0.00			0.00	0.00	0.00			

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM
1	8.200	27.73	0.12	11.50	252.00	1.13	3.95	4.09	3.95	4.09	2.32	0.00	0.00	0.00	11.16	0.00	0.	0.00	
2	8.100	27.70	0.12	11.50	252.00	1.15	4.21	4.11	4.21	4.11	2.33	0.00	0.00	0.00	11.02	0.00	0.	0.00	
3	8.000	27.67	0.12	11.50	252.00	1.17	4.46	4.13	4.46	4.13	2.34	0.00	0.00	0.00	10.89	0.00	0.	0.00	
4	7.900	27.64	0.11	11.50	252.00	1.18	4.70	4.14	4.70	4.14	2.36	0.00	0.00	0.00	10.75	0.00	0.	0.00	
5	7.800	27.61	0.11	11.50	252.00	1.19	4.94	4.16	4.94	4.16	2.37	0.00	0.00	0.00	10.61	0.00	0.	0.00	
6	7.700	27.58	0.11	11.50	252.00	1.20	5.17	4.18	5.17	4.18	2.38	0.00	0.00	0.00	10.47	0.00	0.	0.00	
7	7.600	27.55	0.11	11.50	252.00	1.20	5.39	4.19	5.39	4.19	2.39	0.00	0.00	0.00	10.33	0.00	0.	0.00	
8	7.500	27.51	0.11	11.50	252.00	1.20	5.60	4.21	5.60	4.21	2.40	0.00	0.00	0.00	10.20	0.00	0.	0.00	
9	7.400	27.48	0.11	11.50	252.00	1.19	5.81	4.23	5.81	4.23	2.42	0.00	0.00	0.00	10.06	0.00	0.	0.00	
10	7.300	27.45	0.11	11.50	252.00	1.19	6.02	4.24	6.02	4.24	2.43	0.00	0.00	0.00	9.92	0.00	0.	0.00	
11	7.200	27.42	0.10	11.50	252.00	1.18	6.22	4.26	6.22	4.26	2.44	0.00	0.00	0.00	9.78	0.00	0.	0.00	
12	7.100	27.39	0.10	11.50	252.00	1.17	6.41	4.27	6.41	4.27	2.45	0.00	0.00	0.00	9.64	0.00	0.	0.00	
13	7.000	27.36	0.10	11.50	252.00	1.17	6.60	4.29	6.60	4.29	2.46	0.00	0.00	0.00	9.50	0.00	0.	0.00	
14	6.900	27.33	0.10	11.50	252.00	1.16	6.79	4.31	6.79	4.31	2.47	0.00	0.00	0.00	9.37	0.00	0.	0.00	
15	6.800	27.30	0.10	11.50	252.00	1.15	6.97	4.32	6.97	4.32	2.48	0.00	0.00	0.00	9.23	0.00	0.	0.00	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

16	6.700	27.27	0.10	11.50	252.00	1.14	7.15	4.34	7.15	4.34	2.49	0.00	0.00	0.00	0.00	9.09	0.00	0.	0.00
17	6.600	27.24	0.10	11.50	252.00	1.13	7.32	4.35	7.32	4.35	2.50	0.00	0.00	0.00	0.00	8.95	0.00	0.	0.00
18	6.500	27.21	0.09	11.50	252.00	1.11	7.49	4.37	7.49	4.37	2.51	0.00	0.00	0.00	0.00	8.81	0.00	0.	0.00
19	6.400	27.17	0.09	11.50	252.00	1.10	7.66	4.38	7.66	4.38	2.52	0.00	0.00	0.00	0.00	8.68	0.00	0.	0.00
20	6.300	27.14	0.09	11.50	251.98	1.09	7.81	4.40	7.81	4.40	2.53	0.00	0.00	0.00	0.00	8.54	0.00	0.	0.00
21	6.200	27.11	0.09	11.49	251.88	1.08	7.93	4.40	7.93	4.40	2.53	0.00	0.00	0.00	0.00	8.40	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 2 SITE 2 - SITE 3A

PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU SENSITIVITY RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN MG/L	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
22 EACH	UPR RCH INCR	0.45921 0.00816	27.11 27.42	0.09 0.09	11.49 7.55	251.88 206.20	1.08 2.00	7.93 5.79	4.40 3.87	7.93 4.40	4.40 2.53	2.53 2.06	0.00 0.00	0.00 0.00	0.00 0.00	8.40 0.00	0.00 0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
22	6.20	6.10	0.46737	0.0	0.01668	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.017
23	6.10	6.00	0.47554	0.0	0.01697	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.017
24	6.00	5.90	0.48370	0.0	0.01726	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.017
25	5.90	5.80	0.49186	0.0	0.01755	0.07	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018
26	5.80	5.70	0.50003	0.0	0.01784	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018
27	5.70	5.60	0.50819	0.0	0.01814	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018
28	5.60	5.50	0.51635	0.0	0.01843	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.018
29	5.50	5.40	0.52451	0.0	0.01872	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.019
30	5.40	5.30	0.53268	0.0	0.01901	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.019
31	5.30	5.20	0.54084	0.0	0.01930	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.019
32	5.20	5.10	0.54900	0.0	0.01959	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020
33	5.10	5.00	0.55717	0.0	0.01988	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020
34	5.00	4.90	0.56533	0.0	0.02017	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020
35	4.90	4.80	0.57349	0.0	0.02047	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.020
36	4.80	4.70	0.58165	0.0	0.02076	0.06	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.021
37	4.70	4.60	0.58982	0.0	0.02105	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.021
38	4.60	4.50	0.59798	0.0	0.02134	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.021
39	4.50	4.40	0.60614	0.0	0.02163	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.022
40	4.40	4.30	0.61431	0.0	0.02192	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.022
41	4.30	4.20	0.62247	0.0	0.02221	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.022
42	4.20	4.10	0.63063	0.0	0.02250	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023
43	4.10	4.00	0.63880	0.0	0.02280	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023
44	4.00	3.90	0.64696	0.0	0.02309	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023
45	3.90	3.80	0.65512	0.0	0.02338	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.023
46	3.80	3.70	0.66328	0.0	0.02367	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.024
47	3.70	3.60	0.67145	0.0	0.02396	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.024
48	3.60	3.50	0.67961	0.0	0.02425	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.024
49	3.50	3.40	0.68777	0.0	0.02454	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.025
50	3.40	3.30	0.69594	0.0	0.02484	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.025
51	3.30	3.20	0.70410	0.0	0.02513	0.05	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.025

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

TOT					1.69		84065.77	95096.98												
Avg					0.02060		0.88	31.70												
CUM					3.18															28.02

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT DECAY 1/da	PO4 SRCE *	ALG RATE 1/da	MAC PROD **	COLI PROD **	NCM DECAY 1/da	NCM SETT 1/da
22	6.100	7.95	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.33	5.33	5.33	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
23	6.000	7.94	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.34	5.34	5.34	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
24	5.900	7.94	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.34	5.34	5.34	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
25	5.800	7.94	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.35	5.35	5.35	0.02	0.24	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00
26	5.700	7.93	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.36	5.36	5.36	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
27	5.600	7.93	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.36	5.36	5.36	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
28	5.500	7.93	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.37	5.37	5.37	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
29	5.400	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.38	5.38	5.38	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
30	5.300	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.38	5.38	5.38	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
31	5.200	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.39	5.39	5.39	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
32	5.100	7.92	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.40	5.40	5.40	0.02	0.24	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00
33	5.000	7.91	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.41	5.41	5.41	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
34	4.900	7.91	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.41	5.41	5.41	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
35	4.800	7.91	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.42	5.42	5.42	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
36	4.700	7.90	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.43	5.43	5.43	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
37	4.600	7.90	0.91	0.11	0.24	0.00	0.02	0.12	0.00	5.43	5.43	5.43	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
38	4.500	7.90	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.44	5.44	5.44	0.02	0.24	0.00	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00
39	4.400	7.90	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.45	5.45	5.45	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
40	4.300	7.89	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.45	5.45	5.45	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
41	4.200	7.89	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.46	5.46	5.46	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
42	4.100	7.89	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.47	5.47	5.47	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
43	4.000	7.88	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.48	5.48	5.48	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
44	3.900	7.88	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.48	5.48	5.48	0.02	0.24	0.00	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00
45	3.800	7.88	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.49	5.49	5.49	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
46	3.700	7.87	0.91	0.12	0.24	0.00	0.02	0.12	0.00	5.50	5.50	5.50	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
47	3.600	7.87	0.91	0.12	0.24	0.00	0.03	0.12	0.00	5.50	5.50	5.50	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
48	3.500	7.87	0.91	0.12	0.24	0.00	0.03	0.12	0.00	5.51	5.51	5.51	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
49	3.400	7.87	0.91	0.12	0.24	0.00	0.03	0.12	0.00	5.52	5.52	5.52	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
50	3.300	7.86	0.92	0.12	0.24	0.00	0.03	0.12	0.00	5.53	5.53	5.53	0.02	0.24	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00
51	3.200	7.86	0.92	0.12	0.24	0.00	0.03	0.12	0.00	5.53	5.53	5.53	0.02	0.24	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM
22	6.100	27.13	0.09	11.42	251.09	1.09	7.71	4.35	7.71	4.35	2.48	0.00	0.00	0.00	8.37	0.00	0.	0.00	
23	6.000	27.15	0.09	11.36	250.32	1.09	7.50	4.30	7.50	4.30	2.43	0.00	0.00	0.00	8.34	0.00	0.	0.00	
24	5.900	27.18	0.09	11.29	249.58	1.09	7.31	4.26	7.31	4.26	2.39	0.00	0.00	0.00	8.31	0.00	0.	0.00	
25	5.800	27.20	0.09	11.23	248.86	1.09	7.12	4.21	7.12	4.21	2.34	0.00	0.00	0.00	8.28	0.00	0.	0.00	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

26	5.700	27.22	0.09	11.17	248.17	1.10	6.94	4.17	6.94	4.17	2.30	0.00	0.00	0.00	0.00	8.25	0.00	0.	0.00
27	5.600	27.24	0.09	11.11	247.50	1.10	6.78	4.12	6.78	4.12	2.26	0.00	0.00	0.00	0.00	8.22	0.00	0.	0.00
28	5.500	27.26	0.09	11.06	246.85	1.10	6.62	4.08	6.62	4.08	2.22	0.00	0.00	0.00	0.00	8.19	0.00	0.	0.00
29	5.400	27.28	0.09	11.00	246.22	1.11	6.46	4.04	6.46	4.04	2.18	0.00	0.00	0.00	0.00	8.16	0.00	0.	0.00
30	5.300	27.30	0.09	10.95	245.61	1.11	6.32	4.01	6.32	4.01	2.15	0.00	0.00	0.00	0.00	8.13	0.00	0.	0.00
31	5.200	27.32	0.09	10.90	245.01	1.11	6.18	3.97	6.18	3.97	2.12	0.00	0.00	0.00	0.00	8.10	0.00	0.	0.00
32	5.100	27.34	0.09	10.85	244.44	1.11	6.05	3.94	6.05	3.94	2.08	0.00	0.00	0.00	0.00	8.07	0.00	0.	0.00
33	5.000	27.36	0.09	10.80	243.88	1.12	5.93	3.90	5.93	3.90	2.05	0.00	0.00	0.00	0.00	8.04	0.00	0.	0.00
34	4.900	27.38	0.09	10.75	243.34	1.12	5.81	3.87	5.81	3.87	2.02	0.00	0.00	0.00	0.00	8.01	0.00	0.	0.00
35	4.800	27.40	0.09	10.71	242.81	1.12	5.70	3.84	5.70	3.84	2.00	0.00	0.00	0.00	0.00	7.98	0.00	0.	0.00
36	4.700	27.42	0.10	10.66	242.30	1.12	5.59	3.81	5.59	3.81	1.97	0.00	0.00	0.00	0.00	7.95	0.00	0.	0.00
37	4.600	27.44	0.10	10.62	241.80	1.13	5.48	3.78	5.48	3.78	1.94	0.00	0.00	0.00	0.00	7.92	0.00	0.	0.00
38	4.500	27.46	0.10	10.58	241.32	1.13	5.38	3.75	5.38	3.75	1.92	0.00	0.00	0.00	0.00	7.89	0.00	0.	0.00
39	4.400	27.49	0.10	10.54	240.85	1.13	5.29	3.73	5.29	3.73	1.89	0.00	0.00	0.00	0.00	7.86	0.00	0.	0.00
40	4.300	27.51	0.10	10.50	240.39	1.13	5.20	3.70	5.20	3.70	1.87	0.00	0.00	0.00	0.00	7.83	0.00	0.	0.00
41	4.200	27.53	0.10	10.46	239.94	1.13	5.11	3.67	5.11	3.67	1.85	0.00	0.00	0.00	0.00	7.80	0.00	0.	0.00
42	4.100	27.55	0.10	10.42	239.50	1.14	5.03	3.65	5.03	3.65	1.83	0.00	0.00	0.00	0.00	7.77	0.00	0.	0.00
43	4.000	27.57	0.10	10.39	239.08	1.14	4.95	3.63	4.95	3.63	1.81	0.00	0.00	0.00	0.00	7.74	0.00	0.	0.00
44	3.900	27.59	0.10	10.35	238.67	1.14	4.87	3.60	4.87	3.60	1.79	0.00	0.00	0.00	0.00	7.71	0.00	0.	0.00
45	3.800	27.61	0.10	10.32	238.26	1.14	4.80	3.58	4.80	3.58	1.77	0.00	0.00	0.00	0.00	7.68	0.00	0.	0.00
46	3.700	27.63	0.10	10.28	237.87	1.14	4.73	3.56	4.73	3.56	1.75	0.00	0.00	0.00	0.00	7.65	0.00	0.	0.00
47	3.600	27.65	0.10	10.25	237.48	1.14	4.66	3.54	4.66	3.54	1.73	0.00	0.00	0.00	0.00	7.62	0.00	0.	0.00
48	3.500	27.67	0.10	10.22	237.11	1.14	4.60	3.52	4.60	3.52	1.71	0.00	0.00	0.00	0.00	7.59	0.00	0.	0.00
49	3.400	27.69	0.10	10.18	236.75	1.14	4.54	3.50	4.54	3.50	1.70	0.00	0.00	0.00	0.00	7.56	0.00	0.	0.00
50	3.300	27.71	0.10	10.15	236.41	1.14	4.48	3.48	4.48	3.48	1.68	0.00	0.00	0.00	0.00	7.53	0.00	0.	0.00
51	3.200	27.73	0.10	10.13	236.32	1.15	4.42	3.48	4.42	3.48	1.67	0.00	0.00	0.00	0.00	7.50	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 3 SITE 3A - SITE 4PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU SENSITIVITY RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
		deg C	ppt	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL	
52	UPR RCH	0.70410	27.73	0.10	10.13	236.32	1.15	4.42	3.48	4.42	3.48	1.67	0.00	0.00	0.00	7.50	0.00	0.00
53	WSTLD	0.11160	25.22	0.27	19.30	589.70	0.23	5.76	3.75	5.76	3.75	2.55	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m³/s		m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s
52	3.20	3.10	0.70410	0.0	0.03426	0.03	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.034
53	3.10	3.00	0.81570	13.7	0.03969	0.03	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.040
54	3.00	2.90	0.81570	13.7	0.03969	0.03	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.040
TOT AVG CUM					0.03770		1.04	19.78	6166.05	5934.60	20.55				
							3.28								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
52	3.100	7.85	0.86	0.13	0.24	0.00	0.02	0.12	0.00	1.80	1.80	1.80	0.02	0.24	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00
53	3.000	7.84	0.89	0.13	0.24	0.00	0.02	0.12	0.00	1.80	1.80	1.80	0.02	0.24	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00
54	2.900	7.84	0.89	0.14	0.24	0.00	0.02	0.12	0.00	1.81	1.81	1.81	0.03	0.24	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00
Avg	20	DEG C	RATE	0.76	0.14	0.20	0.00	0.02	0.10	0.00	1.10			0.10	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
*	g/m ² /d			**	mg/L/day																		

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM
52	3.100	27.79	0.10	10.21	239.29	1.27	4.38	3.68	4.38	3.68	1.66	0.00	0.00	0.00	0.00	10.13	0.00	0.	0.00
53	3.000	27.84	0.10	11.38	284.45	1.27	4.51	3.86	4.51	3.86	1.76	0.00	0.00	0.00	0.00	12.77	0.00	0.	0.00
54	2.900	27.90	0.10	11.38	284.45	1.40	4.47	4.01	4.47	4.01	1.75	0.00	0.00	0.00	0.00	15.40	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 4 SITE 4 - SITE 5 PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU SENSITIVITY RUN

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A μg/L	COLI #/100mL	NCM
55	UPR RCH	0.81570	27.90	0.10	11.38	284.45	1.40	4.47	4.01	4.47	4.01	1.75	0.00	0.00	0.00	15.40	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m ³ /s		m/s	days	m	m	m ³	m ²	m ²	m ³	m/s	m ² /s	m/s
55	2.90	2.80	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
56	2.80	2.70	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
57	2.70	2.60	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
58	2.60	2.50	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
59	2.50	2.40	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
60	2.40	2.30	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
61	2.30	2.20	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
62	2.20	2.10	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
63	2.10	2.00	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
64	2.00	1.90	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
65	1.90	1.80	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
66	1.80	1.70	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
67	1.70	1.60	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
68	1.60	1.50	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
69	1.50	1.40	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

70	1.40	1.30	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
71	1.30	1.20	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
72	1.20	1.10	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
73	1.10	1.00	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
74	1.00	0.90	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
75	0.90	0.80	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
76	0.80	0.70	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
77	0.70	0.60	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
78	0.60	0.50	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
79	0.50	0.40	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
80	0.40	0.30	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
81	0.30	0.20	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
82	0.20	0.10	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
83	0.10	0.00	0.81570	13.7	0.01973	0.06	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.020
TOT						1.70			119901.39		82293.30				
Avg					0.01973		1.46	28.38			41.35				
CUM					4.98										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER 1/da	BOD#1 1/da	BOD#1 1/da	ABOD#1 1/da	BOD#2 1/da	BOD#2 1/da	ABOD#2 1/da	BKGD *	FULL *	CORR *	ORGN 1/da	ORGN 1/da	NH3 1/da	NH3 1/da	DENIT 1/da	PO4 1/da	ALG *	MAC **	COLI 1/da	NCM 1/da	NCM 1/da	SETT 1/da
55	2.800	7.83	0.56	0.14	0.24	0.00	0.02	0.12	0.00	4.61	4.61	4.61	0.04	0.24	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00
56	2.700	7.83	0.56	0.15	0.24	0.00	0.02	0.12	0.00	4.62	4.62	4.62	0.05	0.24	0.00	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.00
57	2.600	7.82	0.56	0.15	0.24	0.00	0.02	0.12	0.00	4.63	4.63	4.63	0.05	0.24	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00
58	2.500	7.82	0.56	0.15	0.24	0.00	0.02	0.12	0.00	4.64	4.64	4.64	0.06	0.24	0.00	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.00
59	2.400	7.82	0.56	0.16	0.24	0.00	0.02	0.12	0.00	4.65	4.65	4.65	0.06	0.24	0.00	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00
60	2.300	7.81	0.56	0.16	0.24	0.00	0.02	0.12	0.00	4.65	4.65	4.65	0.07	0.24	0.00	0.00	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.00
61	2.200	7.81	0.56	0.16	0.24	0.00	0.02	0.12	0.00	4.66	4.66	4.66	0.07	0.24	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00
62	2.100	7.81	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.67	4.67	4.67	0.07	0.24	0.00	0.00	0.00	0.00	1.21	0.00	0.00	0.00	0.00	0.00
63	2.000	7.80	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.68	4.68	4.68	0.08	0.24	0.00	0.00	0.00	0.00	1.22	0.00	0.00	0.00	0.00	0.00
64	1.900	7.80	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.69	4.69	4.69	0.08	0.24	0.00	0.00	0.00	0.00	1.24	0.00	0.00	0.00	0.00	0.00
65	1.800	7.79	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.70	4.70	4.70	0.09	0.24	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00
66	1.700	7.79	0.56	0.17	0.24	0.00	0.02	0.12	0.00	4.70	4.70	4.70	0.09	0.24	0.00	0.00	0.00	0.00	1.26	0.00	0.00	0.00	0.00	0.00
67	1.600	7.79	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.71	4.71	4.71	0.09	0.24	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	0.00
68	1.500	7.78	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.72	4.72	4.72	0.10	0.24	0.00	0.00	0.00	0.00	1.29	0.00	0.00	0.00	0.00	0.00
69	1.400	7.78	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.73	4.73	4.73	0.10	0.24	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.00
70	1.300	7.77	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.74	4.74	4.74	0.10	0.24	0.00	0.00	0.00	0.00	1.32	0.00	0.00	0.00	0.00	0.00
71	1.200	7.77	0.56	0.18	0.24	0.00	0.03	0.12	0.00	4.75	4.75	4.75	0.11	0.24	0.00	0.00	0.00	0.00	1.33	0.00	0.00	0.00	0.00	0.00
72	1.100	7.77	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.75	4.75	4.75	0.11	0.24	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00	0.00
73	1.000	7.76	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.76	4.76	4.76	0.11	0.24	0.00	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00	0.00
74	0.900	7.76	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.77	4.77	4.77	0.12	0.24	0.00	0.00	0.00	0.00	1.37	0.00	0.00	0.00	0.00	0.00
75	0.800	7.75	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.78	4.78	4.78	0.12	0.24	0.00	0.00	0.00	0.00	1.38	0.00	0.00	0.00	0.00	0.00
76	0.700	7.75	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.79	4.79	4.79	0.12	0.24	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.00	0.00	0.00
77	0.600	7.75	0.56	0.19	0.24	0.00	0.03	0.12	0.00	4.80	4.80	4.80	0.13	0.24	0.00	0.00	0.00	0.00	1.41	0.00	0.00	0.00	0.00	0.00
78	0.500	7.74	0.56	0.19	0.25	0.00	0.03	0.12	0.00	4.81	4.81	4.81	0.13	0.25	0.00	0.00	0.00	0.00	1.42	0.00	0.00	0.00	0.00	0.00
79	0.400	7.74	0.56	0.19	0.25	0.00	0.03	0.12	0.00	4.81	4.81	4.81	0.13	0.25	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.00	0.00
80	0.300	7.73	0.56	0.20	0.25	0.00	0.03	0.12	0.00	4.82	4.82	4.82	0.13	0.25	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.00
81	0.200	7.73	0.56	0.20	0.25	0.00	0.03	0.12	0.00	4.83	4.83	4.83	0.14	0.25	0.00	0.00	0.00	0.00	1.47	0.00	0.00	0.00	0.00	0.00
82	0.100	7.73	0.56	0.20	0.25	0.00	0.03	0.12	0.00	4.84	4.84	4.84	0.14	0.25	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00	0.00
83	0.000	7.72	0.57	0.20	0.25	0.00	0.03	0.12	0.00	4.85	4.85	4.85	0.14	0.25	0.00	0.00	0.00	0.00	1.49	0.00	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.48 0.14 0.20 0.00 0.02 0.10 0.00 2.80 0.13 0.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A μg/L	MACRO g/m ³	COLI #/100mL	NCM
55	2.800	27.93	0.10	11.38	284.45	1.45	4.51	3.99	4.51	3.99	1.76	0.00	0.00	0.00	0.00	15.56	0.00	0.	0.00
56	2.700	27.96	0.10	11.38	284.45	1.49	4.54	3.97	4.54	3.97	1.76	0.00	0.00	0.00	0.00	15.72	0.00	0.	0.00
57	2.600	27.99	0.10	11.38	284.45	1.52	4.56	3.95	4.56	3.95	1.76	0.00	0.00	0.00	0.00	15.88	0.00	0.	0.00
58	2.500	28.01	0.10	11.38	284.45	1.55	4.59	3.93	4.59	3.93	1.77	0.00	0.00	0.00	0.00	16.03	0.00	0.	0.00
59	2.400	28.04	0.11	11.38	284.45	1.58	4.61	3.91	4.61	3.91	1.77	0.00	0.00	0.00	0.00	16.19	0.00	0.	0.00
60	2.300	28.07	0.11	11.38	284.45	1.61	4.63	3.89	4.63	3.89	1.77	0.00	0.00	0.00	0.00	16.35	0.00	0.	0.00
61	2.200	28.10	0.11	11.38	284.45	1.64	4.65	3.87	4.65	3.87	1.77	0.00	0.00	0.00	0.00	16.51	0.00	0.	0.00
62	2.100	28.13	0.11	11.38	284.45	1.67	4.67	3.85	4.67	3.85	1.77	0.00	0.00	0.00	0.00	16.67	0.00	0.	0.00
63	2.000	28.16	0.11	11.38	284.45	1.69	4.69	3.82	4.69	3.82	1.77	0.00	0.00	0.00	0.00	16.83	0.00	0.	0.00
64	1.900	28.18	0.11	11.38	284.45	1.71	4.71	3.80	4.71	3.80	1.77	0.00	0.00	0.00	0.00	16.99	0.00	0.	0.00
65	1.800	28.21	0.11	11.38	284.45	1.73	4.73	3.78	4.73	3.78	1.77	0.00	0.00	0.00	0.00	17.14	0.00	0.	0.00
66	1.700	28.24	0.11	11.38	284.45	1.75	4.74	3.76	4.74	3.76	1.77	0.00	0.00	0.00	0.00	17.30	0.00	0.	0.00
67	1.600	28.27	0.11	11.38	284.45	1.77	4.76	3.74	4.76	3.74	1.77	0.00	0.00	0.00	0.00	17.46	0.00	0.	0.00
68	1.500	28.30	0.11	11.38	284.45	1.79	4.77	3.72	4.77	3.72	1.77	0.00	0.00	0.00	0.00	17.62	0.00	0.	0.00
69	1.400	28.32	0.12	11.38	284.45	1.80	4.78	3.70	4.78	3.70	1.77	0.00	0.00	0.00	0.00	17.78	0.00	0.	0.00
70	1.300	28.35	0.12	11.38	284.45	1.82	4.79	3.69	4.79	3.69	1.77	0.00	0.00	0.00	0.00	17.94	0.00	0.	0.00
71	1.200	28.38	0.12	11.38	284.45	1.83	4.81	3.67	4.81	3.67	1.76	0.00	0.00	0.00	0.00	18.10	0.00	0.	0.00
72	1.100	28.41	0.12	11.38	284.45	1.84	4.82	3.65	4.82	3.65	1.76	0.00	0.00	0.00	0.00	18.26	0.00	0.	0.00
73	1.000	28.44	0.12	11.38	284.45	1.85	4.83	3.63	4.83	3.63	1.76	0.00	0.00	0.00	0.00	18.41	0.00	0.	0.00
74	0.900	28.47	0.12	11.38	284.45	1.87	4.83	3.61	4.83	3.61	1.76	0.00	0.00	0.00	0.00	18.57	0.00	0.	0.00
75	0.800	28.49	0.12	11.38	284.45	1.88	4.84	3.59	4.84	3.59	1.75	0.00	0.00	0.00	0.00	18.73	0.00	0.	0.00
76	0.700	28.52	0.12	11.38	284.45	1.89	4.85	3.57	4.85	3.57	1.75	0.00	0.00	0.00	0.00	18.89	0.00	0.	0.00
77	0.600	28.55	0.12	11.38	284.45	1.90	4.86	3.55	4.86	3.55	1.75	0.00	0.00	0.00	0.00	19.05	0.00	0.	0.00
78	0.500	28.58	0.12	11.38	284.45	1.91	4.87	3.53	4.87	3.53	1.74	0.00	0.00	0.00	0.00	19.21	0.00	0.	0.00
79	0.400	28.61	0.13	11.38	284.45	1.91	4.87	3.51	4.87	3.51	1.74	0.00	0.00	0.00	0.00	19.37	0.00	0.	0.00
80	0.300	28.64	0.13	11.38	284.45	1.92	4.88	3.50	4.88	3.50	1.73	0.00	0.00	0.00	0.00	19.52	0.00	0.	0.00
81	0.200	28.66	0.13	11.38	284.45	1.93	4.88	3.48	4.88	3.48	1.73	0.00	0.00	0.00	0.00	19.68	0.00	0.	0.00
82	0.100	28.69	0.13	11.38	284.45	1.94	4.89	3.46	4.89	3.46	1.73	0.00	0.00	0.00	0.00	19.84	0.00	0.	0.00
83	0.000	28.72	0.13	11.38	284.45	1.94	4.89	3.45	4.89	3.45	1.72	0.00	0.00	0.00	0.00	20.00	0.00	0.	0.00

STREAM SUMMARY

HEADWATER

PETIT CAILLOU WATERSHED MODEL

PETIT CAILLOU SENSITIVITY RUN

TRAVEL TIME = 4.98 DAYS

MAXIMUM EFFLUENT = 13.68 PERCENT

FLOW = 0.45921 TO 0.81570 m³/sDISPERSION = 0.2440 TO 1.1670 m²/s

VELOCITY = 0.01622 TO 0.03969 m/s

DEPTH = 0.88 TO 1.46 m

WIDTH = 19.78 TO 31.70 m

BOD DECAY = 0.11 TO 0.20 per day

NH3 DECAY = 0.00 TO 0.00 per day

SOD = 1.80 TO 5.53 g/m²/dNH3 SOURCE = 0.00 TO 0.00 g/m²/d

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

REAERATION	=	0.56	TO	0.92	per day
BOD SETTLING	=	0.24	TO	0.25	per day
NBOD DECAY	=	0.02	TO	0.14	per day
NBOD SETTLING	=	0.24	TO	0.25	per day
TEMPERATURE	=	27.11	TO	28.72	deg C
DISSOLVED OXYGEN	=	1.08	TO	1.94	mg/L

.....BEGIN SENSITIVITY RUN 1 ON PARAMETER SET 1 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 2 ON PARAMETER SET 1 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 3 ON PARAMETER SET 2 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 11 ITERATIONS
....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 4 ON PARAMETER SET 2 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 5 ON PARAMETER SET 3 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 6 ON PARAMETER SET 3 AND COLUMN 2

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 11 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 7 ON PARAMETER SET 4 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 7 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 8 ON PARAMETER SET 4 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 11 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 9 ON PARAMETER SET 5 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 13 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 10 ON PARAMETER SET 5 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 11 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 11 ON PARAMETER SET 6 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 12 ON PARAMETER SET 6 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 9 ITERATIONS
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 13 ON PARAMETER SET 7 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 14 ON PARAMETER SET 7 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 15 ON PARAMETER SET 8 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 16 ON PARAMETER SET 8 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 17 ON PARAMETER SET 9 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 18 ON PARAMETER SET 9 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 9 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
.....BEGIN SENSITIVITY RUN 19 ON PARAMETER SET 10 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN    9 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 20 ON PARAMETER SET 10 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN    8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 21 ON PARAMETER SET 11 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN    9 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 22 ON PARAMETER SET 11 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN   14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 23 ON PARAMETER SET 12 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN    8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 24 ON PARAMETER SET 12 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN    8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 25 ON PARAMETER SET 13 AND COLUMN  1
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 14 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 26 ON PARAMETER SET 13 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 11 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
***** WARNING: NEGATIVE CONCENTRATIONS SET TO ZERO FOR Dissolved Oxygen
```

```
.....BEGIN SENSITIVITY RUN 27 ON PARAMETER SET 14 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 9 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 28 ON PARAMETER SET 14 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 29 ON PARAMETER SET 15 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 10 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 30 ON PARAMETER SET 15 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 31 ON PARAMETER SET 16 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 32 ON PARAMETER SET 16 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 9 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 33 ON PARAMETER SET 17 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 34 ON PARAMETER SET 17 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 35 ON PARAMETER SET 18 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 36 ON PARAMETER SET 18 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 37 ON PARAMETER SET 19 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 11 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....BEGIN SENSITIVITY RUN 38 ON PARAMETER SET 19 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 9 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 39 ON PARAMETER SET 20 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 40 ON PARAMETER SET 20 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 41 ON PARAMETER SET 21 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 42 ON PARAMETER SET 21 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 43 ON PARAMETER SET 22 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
.....BEGIN SENSITIVITY RUN 44 ON PARAMETER SET 22 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN     8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 45 ON PARAMETER SET 23 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN     8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 46 ON PARAMETER SET 23 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN     8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 47 ON PARAMETER SET 24 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN     8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 48 ON PARAMETER SET 24 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN     9 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 49 ON PARAMETER SET 25 AND COLUMN  1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN     8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 50 ON PARAMETER SET 25 AND COLUMN  2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 51 ON PARAMETER SET 26 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 52 ON PARAMETER SET 26 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 53 ON PARAMETER SET 27 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 54 ON PARAMETER SET 27 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 55 ON PARAMETER SET 28 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 56 ON PARAMETER SET 28 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....BEGIN SENSITIVITY RUN 57 ON PARAMETER SET 29 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 58 ON PARAMETER SET 29 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 59 ON PARAMETER SET 30 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 60 ON PARAMETER SET 30 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 61 ON PARAMETER SET 31 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 62 ON PARAMETER SET 31 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
.....BEGIN SENSITIVITY RUN 63 ON PARAMETER SET 32 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 64 ON PARAMETER SET 32 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 65 ON PARAMETER SET 33 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 66 ON PARAMETER SET 33 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 67 ON PARAMETER SET 34 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 68 ON PARAMETER SET 34 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
```

```
.....BEGIN SENSITIVITY RUN 69 ON PARAMETER SET 35 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 70 ON PARAMETER SET 35 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 71 ON PARAMETER SET 36 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 72 ON PARAMETER SET 36 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 73 ON PARAMETER SET 37 AND COLUMN 1
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....BEGIN SENSITIVITY RUN 74 ON PARAMETER SET 37 AND COLUMN 2
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 8 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED

.....EXECUTION COMPLETED

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix B – Projection Model Development

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix B1 – Summer Justifications

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	0		This was done to allow dispersion in the model but not to force the bottom element through the boundary conditions.
KL MINIMUM	0.7	m/day	The minimum KL of 2.3 ft/day converted to 0.70 m/day.
K2 MAXIMUM	25	1/day at 20 deg C	EPA Policy in the absence of a measured value.
HYDRAULIC CALCULATION METHOD	2		The low slopes in this waterbody cause a substantial amount of water to be present during critical flow conditions, making the Leopold relationships inaccurate. This method allows the model to predict a more accurate depth and width during low flow conditions.
SETTLING RATE UNITS	2		By making the settling rate a velocity the rate becomes dependent upon the depth.

DATA TYPE 8 - REACH IDENTIFICATION DATA					
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, kilometers
1	PC	Headwater to Site 2	8.30	6.20	0.1000
2	PC	Site 2 to Site 3A	6.20	3.20	0.1000
3	PC	Site 3A to Site 4	3.20	2.90	0.1000
4	PC	Site 4 to Site 5	2.90	0.00	0.1000

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Data Source	Width Const. "c"	Data Source
1	Headwater to Site 2	0	0	Widths and Depths assumed constant with changes in flow.	28.956	Site 2 Cross Section
2	Site 2 to Site 3A	0	0	Widths and Depths assumed constant with changes in flow.	31.699	Site 3A Cross Section
3	Site 3A to Site 4	0	0	Widths and Depths assumed constant with changes in flow.	19.782	Site 4 Cross Section
4	Site 4 to Site 5	0	0	Widths and Depths assumed constant with changes in flow.	28.377	Site 5 Cross Section

Reach	Name	Depth Coeff. "d"	Depth Exp. "e"	Data Source	Depth Const. "f"	Data Source
1	Headwater to Site 2	0	0	Widths and Depths assumed constant with changes in flow.	0.978	Site 2 Cross Section
2	Site 2 to Site 3A	0	0	Widths and Depths assumed constant with changes in flow.	0.884	Site 3A Cross Section
3	Site 3A to Site 4	0	0	Widths and Depths assumed constant with changes in flow.	1.039	Site 4 Cross Section
4	Site 4 to Site 5	0	0	Widths and Depths assumed constant with changes in flow.	1.457	Site 5 Cross Section

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS	
Reach	Name	Dispersion Coeff. "a"	Data Source
1	Headwater to Site 2	0.244	Dispersion Calculated from dye study therefore assumed E = a
2	Site 2 to Site 3A	0.244	Dispersion Calculated from dye study therefore assumed E = a
3	Site 3A to Site 4	0.244	Dispersion Calculated from dye study therefore assumed E = a
4	Site 4 to Site 5	1.167	Dispersion Calculated from dye study therefore assumed E = a

DATA TYPE 11 - INITIAL CONDITIONS									
Reach	Name	Temp	Temp Justification	Salinity	Salinity Justification	DO	DO Justification	Chl A	Chl A Justification
1	Headwater to Site 2	29.85	90 th Percentile Temperature for Ambient Site 939	0.12	Site 1 Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	11.3	Site 1 Lab Data
2	Site 2 to Site 3A	29.85	90 th Percentile Temperature for Ambient Site 939	0.09	Site 2 Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	8.4	Site 2 Lab Data
3	Site 3A to Site 4	29.85	90 th Percentile Temperature for Ambient Site 939	0.10	Site 3A Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	7.5	Site 3A Lab Data
4	Site 4 to Site 5	29.85	90 th Percentile Temperature for Ambient Site 939	0.10	Site 4 Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	15.4	Site 4 Lab Data

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			
REACH	NAME	K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source
1	Headwater to Site 2	11	Texas Equation	0.97	75% Reduction in total loading to meet criteria.
2	Site 2 to Site 3A	11	Texas Equation	1.06	75% Reduction in total loading to meet criteria.
3	Site 3A to Site 4	11	Texas Equation	0.34	75% Reduction in total loading to meet criteria.
4	Site 4 to Site 5	11	Texas Equation	0.88	75% Reduction in total loading to meet criteria.

DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			
CBOD 1 Decay	CBOD 1 Decay Justification	CBOD 2 Decay	CBOD 2 Decay Justification
0.2146875	Average (PC1 + PC2)	0.03049479	Average (PC1 + PC2)
0.1430729	Average (PC2 + PC3A)	0.03049479	Average (PC2 + PC3A)
0.1402083	Average (PC3A + PC4)	0.01959103	Average (PC3A + PC4)
0.13734375	Average (PC4 + PC5)	0.01952737	Average (PC4 + PC5)

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS		
REACH	NAME	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source
1	Headwater to Site 2	0.2	0.1	Calibration
2	Site 2 to Site 3A	0.2	0.1	Calibration
3	Site 3A to Site 4	0.2	0.1	Calibration
4	Site 4 to Site 5	0.2	0.1	Calibration

DATA TYPE 13 - NBOD COEFFICIENTS			
Reach	Name	NBOD Decay	NBOD Decay Justification
1	Headwater to Site 2	0.12	Average (PC1 + PC2)
2	Site 2 to Site 3A	0.12	Average (PC2 + PC3A)
3	Site 3A to Site 4	0.10	Average (PC3A + PC4)
4	Site 4 to Site 5	0.13	Average (PC4 + PC5)

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Ouflow, m ³ for ft ³	Incr. Inflow, m ³ for ft ³	Data Source	Temp, deg C, Cont. Mont.	Sal., ppt, Insitu	Chlorides Lab Data	Conductivity Insitu	Data Source
1	Headwater to Site 2								
2	Site 2 to Site 3A		0.24489	PC 3A - PC 2	29.85	0	0	0	90 th Percentile Temperature for Ambient Site 939
3	Site 3A to Site 4								
4	Site 4 to Site 5								

DATA TYPES 17 - INCREMENTAL DATA FOR DO, UCBOD1, UCBOD2, AND NBOD

Reach	Reach Name	DO, mg/l, Cont. Mont.	Data Source
1	Headwater to Site 2		
2	Site 2 to Site 3A	2	Standard Practice for Groundwater Inflow
3	Site 3A to Site 4		
4	Site 4 to Site 5		

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPE 19 - NONPOINT SOURCES

Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day or lb/day	NBOD, kg/day or lb/day	UCBOD2, kg/day or lb/day	Data Source
1	Headwater to Site 2	2.10	100.0	14.69	15.6	75% Reduction in total loading to meet criteria.
2	Site 2 to Site 3A	3	0.0	0.00	0.0	75% Reduction in total loading to meet criteria.
3	Site 3A to Site 4	0.3	0.0	0.00	12.5	75% Reduction in total loading to meet criteria.
4	Site 4 to Site 5	2.9	84.4	21.88	7.8	75% Reduction in total loading to meet criteria.

DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES

Headwater Name	Element No.	Headwater Flow, cms	Data Source	Temp, deg C, Cont. Mont.	Data Source	Salinity (Insitu)	Chlorides (Lab Data)	Conductivity (Insitu)	Data Source
Petit Caillou Headwater	1	0.78551	Critical Flow Projection	29.85	90 th Percentile Temperature for Ambient Site 939	0.12	11.5	252.4	PC1

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPES 21 - HEADWATER DATA FOR DO, UCBOD1, UCBOD2, AND NBOD						
Headwater Name	Dissolved Oxygen, mg/L, Cont. Mont.	Data Source	UCBOD1, mg/l	UCBOD2, mg/l	NBOD, mg/l	Data Source
Petit Caillou Headwater	6.82	90% DO Sat for Ambient Site 939	1.14	1.27	0.72	75% Reduction in total loading to meet criteria.

DATA TYPES 22 - HEADWATER DATA FOR CHLOROPHYL A		
Headwater Name	Chlorophyll a, ug/L	Date Source
Petit Caillou Headwater	11.3	PC 1 Lab Data

DATA TYPES 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES									
Wasteload / Withdrawal Name	EL #	Flow, cms	Data Source	Temp, deg C	Data Source	Salinity	Chlorides	Cond	Data Source
St. Louis Canal	53	0.0028	Critical summer flow projection as per LTP.	29.85	90 th Percentile Temperature for Ambient Site 939	0.27	19.3	589.7	PC 3 Insitu

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPES 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN							
Wasteload / Withdrawal Name	EL #	DO, mg/l	Data Source	UCBOD1, mg/l	UNBOD, mg/l	UCBOD2, mg/l	Data Source
St. Louis Canal	53	5	DO Standard for Subsegment 120503	1.8	0.8	1.17	75% Reduction in total loading to meet criteria.

DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Survey Site Name:			
Parameter	Value	Units	Data Source
TEMPERATURE	29.85		90 th Percentile Temperature for Ambient Site 939
SALINITY	0.13		Site 6 Insitu
CHLORIDES	17.9		Site 6 Water Quality Lab
CONDUCTIVITY	278.3		Site 6 Insitu
DISSOLVED OXYGEN	5		DO Standard for Subsegment 120503
BIOCHEMICAL OXYGEN DEMAND 1	4.63		Site 6 Water Quality Lab
BIOCHEMICAL OXYGEN DEMAND 2	3.59		Site 6 Water Quality Lab
NBOD	2.27		Site 6 Water Quality Lab
CHLOROPHYLL A	20		Site 6 Water Quality Lab

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix B2 – Summer Loading

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Summer Projection, Non-Point Benthic Load Input and TMDL Calculations:

Modeled stream or water body:	Petit Caillou (SUBSEGMENT 120503)
-------------------------------	-----------------------------------

Shaded cells are input values for calculations.

Values to be used in the projection models.

Reach Number and Description	Calibration Model Values									Back-ground Benthic Load	Back-ground percentage reduction	Back-ground Benthic Load adjusted for % reduction	Proj. Model Avg. Reach Width	Proj. Temp.
	Non-Point UCBOD1	Non-Point UCBOD2	Total Non-Point UCBOD	Total Nonpoint Organic-N	Total Nonpoint Ammonia-N	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length					
	gm O ₂ / [(m ²)(day)]	Kilometers	gm O ₂ / [(m ²)(day)]	%	gm O ₂ / [(m ²)(day)]	Meters	(deg Celcius)							
	A1 (note 1)	A2 (note 1)	A3, (note 1)	B1 (note 1)	B2 (note 1)	B3, (note 1)	C, (note 1)	D, (note 1)	E, (note 1)	F1	F2	F = F1 x (1-F2)	G	H
REACH 1: Headwater - Site 2	5.263	0.822	6.085	0.000	0.000	0.773	3.10	9.958	2.10	0.00	0%	0.00	28.96	29.85
REACH 2: Site 2 - Site 3A	0.000	0.000	0.000	0.000	0.000	0.000	3.40	3.400	3.00	0.00	0%	0.00	31.70	29.85
REACH 3: Site 3A - Site 4	0.000	6.740	6.740	0.000	0.000	0.000	1.10	7.840	0.30	0.00	0%	0.00	19.78	29.85
REACH 4: Site 4 - Site 5	3.281	0.304	3.585	0.000	0.000	0.851	2.80	7.235	2.90	0.00	0%	0.00	28.38	29.85
Sub-Total														

Note 1, Data was calculated in and brought from the Calibration worksheet dataset.

Note 2, $J = [(1 - I) \times (D - F1)]$

Note 3, $L = [K - F] / (1 - MOS) + F$

Note 4, $R = E \times G \times O \times 1.065^{(H-20)}$

Note 5, $X = U \times 1.065^{(H-20)}$

Note 6, $AE = E \times G \times AB \times 1.065^{(H-20)}$

EXPLICIT MARGINS:

MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] =		20%
--	--	-----

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Summer Projection, Non-Point Benthic Load Input and TMDL Calculations:

Modeled stream or water body:

Bayou Petit Caillou Subsegment 120503

Shaded cells are input values for calculations.

Values to be used in the projection models.

Reach Number and Description	Man-Made Calibration Benthic Load adjusted for % reduction (Reduced CBL)	Total Calibration Benthic Load (TCBL) adjusted for % reduction (Reduced TCBL)	Projection Model Equivalents				Projected Model Loads				MOS Total Benthic Load @ 20°C	
			Reduced TCBL adjusted for MOS	Non-Point UCBOD	Non-Point UNBOD	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	SOD load @ Proj. temp.	
	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	gm O ₂ / [(m ²)(day)]	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	
	J, 2)	K = F + J	L, (note 3)	M = (L)(A / D)	N = (L)(B / D)	O = (L)(C / D)	P1 = (M)(G)(E)(A / A3)	P2 = (M)(G)(E)(A2 / A3)	P3 = (E)(G)(M)	Q3 = (E)(G)(N)	R, (note 4)	S = P1 + P2 + Q3 + R
REACH 1: Headwater - Site 2	2.49	2.49	3.11	1.901	0.242	0.97	100.00	15.63	115.63	14.69	109.54	239.85
REACH 2: Site 2 - Site 3A	0.85	0.85	1.06	0.000	0.000	1.06	0.00	0.00	0.00	0.00	187.88	187.88
REACH 3: Site 3A - Site 4	1.96	1.96	2.45	2.106	0.000	0.34	0.00	12.50	12.50	0.00	3.79	16.29
REACH 4: Site 4 - Site 5	1.81	1.81	2.26	1.120	0.266	0.88	84.38	7.81	92.19	21.88	133.90	247.96
Sub-Total		7.11					184.38	35.94	220	37	435.11	692
												98

Note 1, Data was calculated in and brought from the Calibration worksheet dataset.

Note 2, $J = [(1 - I) \times (D - F1)]$

Note 3, $L = [(K - F) / (1 - MOS) + F]$

Note 4, $R = E \times G \times O \times 1.065^{(H-20)}$

Note 5, $X = U \times 1.065^{(H-20)}$

Note 6, $AE = E \times G \times AB \times 1.065^{(H-20)}$

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Reach Number and Description	Man-made Model equivalents												
	MOS SOD @ 20°C	Non-Point UCBOD1 MOS Loads	Non-Point UCBOD2 MOS Loads	Non-Point UCBOD MOS Loads	Non-Point UNBOD MOS Loads	Adjusted SOD MOS @ Proj. temp	Adjusted Total MOS @ Proj. temp	Manmade portion of TCBL	Non-Point UCBOD1	Non-Point UCBOD2	Non-Point UCBOD	Non-Point UNBOD	SOD @ 20°C
	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	gm O ₂ / [(m ²)(day)]						
	U = (T)(C/D)	V1 = T (A1/D)	V2 = T (A2/D)	V3 = (T)(A3/D)	W3 = (T)(B3/D)	X, (note 5)	V1+V2+W3+S	Y = L - F	Z1 = (Y)(A1 / D)	Z2 = (Y)(A2 / D)	Z3=(Y) (A3/D)	AA3 = (Y) x (B3/D)	AB = (Y) x (C/D)
REACH 1: Headwater - Site 2	11.78	20.00	3.13	23.13	2.94	21.91	47.97	3.11	1.64	0.26	1.90	0.24	0.97
REACH 2: Site 2 - Site 3A	20.21	0.00	0.00	0.00	0.00	37.58	37.58	1.06	0.00	0.00	0.00	0.00	1.06
REACH 3: Site 3A - Site 4	0.41	0.00	2.50	2.50	0.00	0.76	3.26	2.45	0.00	2.11	2.11	0.00	0.34
REACH 4: Site 4 - Site 5	14.40	16.88	1.56	18.44	4.38	26.78	49.59	2.26	1.03	0.09	1.12	0.27	0.88
Sub-Total		37	7	44	7	87	138						

Note 1, Data was calculated in and brought from the Calibration worksheet dataset.

554

Note 2, $J = [(1 - I) \times (D - F1)]$

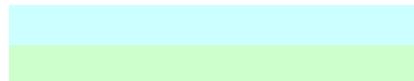
Note 3, $L = [(K - F) / (1 - MOS) + F]$

Note 4, $R = E \times G \times O \times 1.065^{(H-20)}$

Note 5, $X = U \times 1.065^{(H-20)}$

Note 6, $AE = E \times G \times AB \times 1.065^{(H-20)}$

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005



Reach Number and Description	Man-made Model loads						Background Model loads					
	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	SOD load @ Proj. temp.	Man-made Total Projection Benthic Load	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	SOD load @ Proj. temp.	Background Total Projection Benthic Load
	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)
	AC1 = (Z1)(G)(E)	AC2 = (Z2)(G)(E)	AC3 = (Z3)(G)(E)	AD3 = (AA3)(G)(E)	AE, (note 6)	AC3 + AD3 + AE	AF1 = P1 - AC1	AF2 = P2 - AC2	AF3 = P3 - AC3	AG3 = Q3 - AD3	AH = R - AE	AF3 + AG3 + AH
REACH 1: Headwater - Site 2	100.00	15.63	115.63	14.69	109.54	239.85	0.00	0.00	0.00	0.00	0.00	0.00
REACH 2: Site 2 - Site 3A	0.00	0.00	0.00	0.00	187.88	187.88	0.00	0.00	0.00	0.00	0.00	0.00
REACH 3: Site 3A - Site 4	0.00	12.50	12.50	0.00	3.79	16.29	0.00	0.00	0.00	0.00	0.00	0.00
REACH 4: Site 4 - Site 5	84.38	7.81	92.19	21.88	133.90	247.96	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Total	184	36	220	37	435	692	0	0	0	0	0	0

Note 1, Data was calculated in and brought from the Calibration worksheet dataset.

Note 2, $\mathbf{J} = [(1 - \mathbf{I}) \times (\mathbf{D} - \mathbf{F1})]$

Note 3, $\mathbf{L} = [(\mathbf{K} - \mathbf{F}) / (1 - \text{MOS}) + \mathbf{F}]$

Note 4, $\mathbf{R} = \mathbf{E} \times \mathbf{G} \times \mathbf{O} \times 1.065^{(H-20)}$

Note 5, $\mathbf{X} = \mathbf{U} \times 1.065^{(H-20)}$

Note 6, $\mathbf{AE} = \mathbf{E} \times \mathbf{G} \times \mathbf{AB} \times 1.065^{(H-20)}$

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads:

Petit Caillou (SUBSEGMENT 120503)									
Shaded cells are input values for calculations.					Values to be used in the projection models.				
Headwater / Tributary Load Determination									
		FROM CALIBRATION							
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg/l)	UCBOD2 (mg/l)	Total UCBOD (mg/l)	UNBOD (mg/l)	UCBOD1 (kg/day)	UCBOD2 (kg/day)	UCBOD (kg/day)	UNBOD (kg/day)
	A	B1	B2	B3 = B1 + B2	C3	D1=(86.4)(A)(B1)	D2=(86.4)(A)(B2)	D3 = (86.4)(A)(B3)	E3 = (86.4)(A)(C3)
Petite Caillou Headwater	0.7855	3.64	4.07	7.71	2.30	247.04	276.22	523.26	156.09
St. Louis Canal	0.0028	5.76	3.75	9.51	2.55	1.39	0.91	2.30	0.62
SUB-TOTAL TMDL LOADING								526	157

EXPLICIT MARGINS:

MARGIN OF SAFETY (MOS) (%) = **20%**

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Summer TMDL calculations and Projection model calculations for Headwater / Tributary loads:

Petit Caillou (SUBSEGMENT 120503)											
Shaded cells are input values for calculations. Values to be used in the projection models.											
Headwater / Tributary Load Determinations											
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg/l)	UCBOD2 (mg/l)	UNBOD (mg/l)	Projection UCBOD1 input conc. (mg/l)	Projection UCBOD2 input conc. (mg/l)	Projection UNBOD input conc. (mg/l)	Total MOS (kg/day)	Total CBOD1 LA (kg/day)	Total CBOD2 LA (kg/day)	Total LA (kg/day)
	A	B1	B2	C3	N1/[(A)(86.4)]	N2/[(A)(86.4)]	(O3)/[(A)(86.4)]	(N1+N2+O3) - (L1+L2+M3)	L1	L2	L1 + L2 + M3
Petite Caillou Headwater	0.7855	3.64	4.07	2.30	1.37	1.53	0.86	50.95	74.11	82.87	203.81
St. Louis Canal	0.0028	5.76	3.75	2.55	2.16	1.41	0.96	0.22	0.42	0.27	0.88
SUB-TOTAL TMDL LOADING								51			205

EXPLICIT MARGINS:

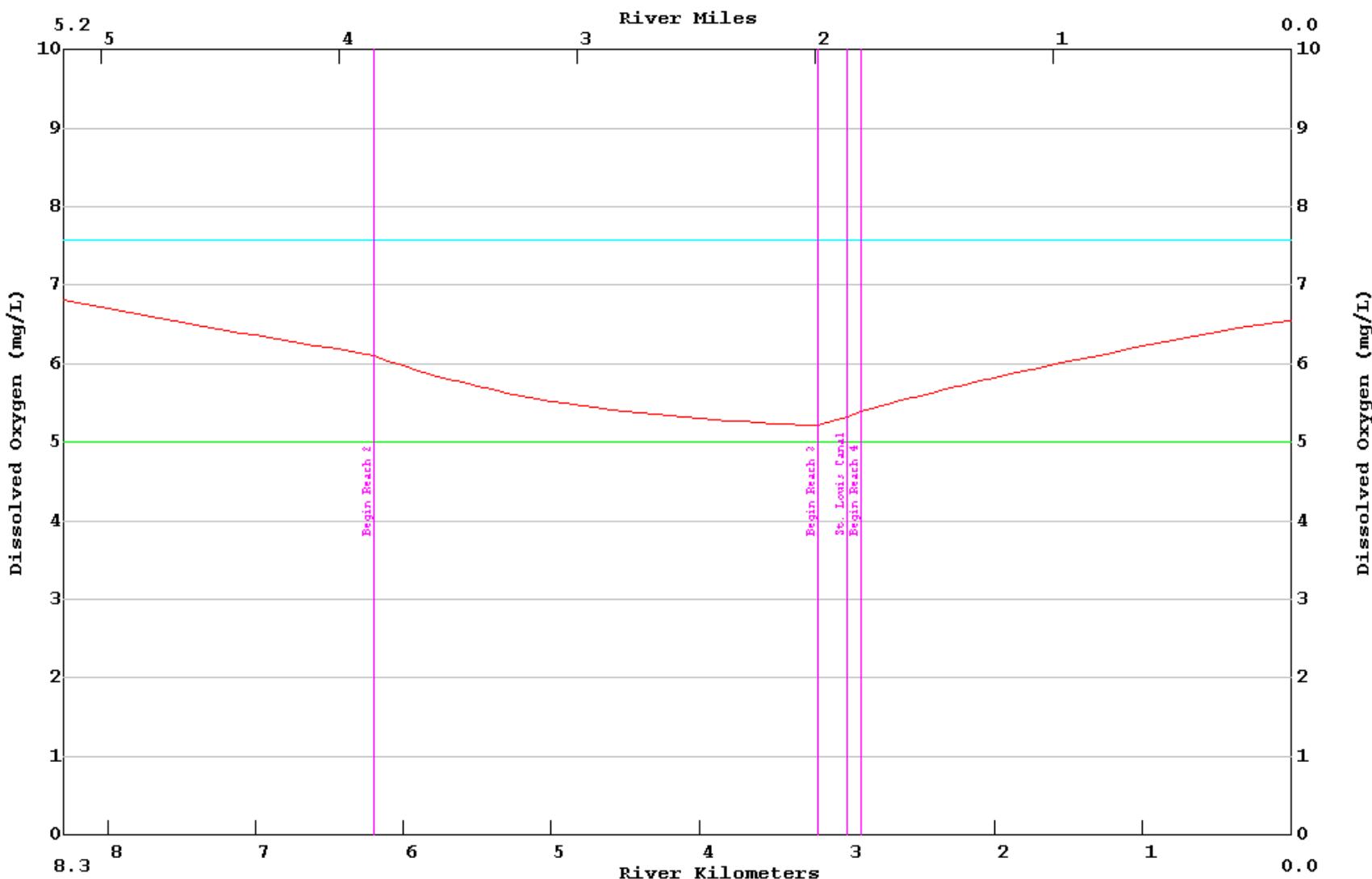
MARGIN OF SAFETY (MOS) (%) =

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix B3 – Summer Output and Graphs

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

LA-QUAL Version 6.10 Run at 14:32 on 01/05/2005 File D:\Petit Caillou\120503\Input Files\pcaisum75.txt
PETIT CAILLOU SUMMER PROJECTION RUN 75% REDUCTION min= 5.22 max= 6.82
:MAINSTEM



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

BAYOU PETIT CAILLOU SUMMER PROJECTION INPUT DATA SET

CNTROL01 PETIT CAILLOU WATERSHED MODEL
CNTROL02 PETIT CAILLOU SUMMER PROJECTION RUN 75% REDUCTION
CNTROL04 YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10 NO PHOSPHORUS
MODOPT11 NO CHLOROPHYLL A
MODOPT12 NO MACROPHYTES
MODOPT13 NO COLIFORM
ENDATA02
PROGRAM KL MINIMUM = 0.7
PROGRAM INHIBITION CONTROL VALUE = 3.
PROGRAM K2 MAXIMUM = 25.0
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
PROGRAM SETTLING RATE UNITS = 2.
PROGRAM OCEAN EXCHANGE RATIO = 0.0
ENDATA03
!Temperature Correction Constants
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
! R# ID SITE NAME RKM RKM LENGTH
REACH ID 1 PC HEADWATER - SITE 2 8.3 6.2 0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

REACH ID	2	PC SITE 2 - SITE 3A	6.2	3.2	0.1
REACH ID	3	PC SITE 3A - SITE 4	3.2	2.9	0.1
REACH ID	4	PC SITE 4 - SITE 5	2.9	0.0	0.1

ENDATA08

!Advection Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

		a	b	c	d	e	f
		WIDTH	WIDTH	WIDTH	DEPTH	DEPTH	DEPTH
	R#	COEFF	EXP	CONST	COEFF	EXP	CONST SLOPE MANNING
HYDR-1	1	0.00	0.00	28.956	0.00	0.00	0.978
HYDR-1	2	0.00	0.00	31.699	0.00	0.00	0.884
HYDR-1	3	0.00	0.00	19.782	0.00	0.00	1.039
HYDR-1	4	0.00	0.00	28.377	0.00	0.00	1.457

ENDATA09

!Dispersive Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

		TIDAL				
	R#	RANGE	a	b	c	d
HYDR-2	1	0.0	0.244	0.0	0.0	0.0
HYDR-2	2	0.0	0.244	0.0	0.0	0.0
HYDR-3	3	0.0	0.244	0.0	0.0	0.0
HYDR-4	4	0.0	1.167	0.0	0.0	0.0

ENDATA10

!Initial Conditions

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----*****

	R#	TEMP	SALINITY	DO	NH3 N	NIT	NIT	PHOS	CHL A	MACROPHYTES
INITIAL	1	29.850	0.12	5.00					11.30	
INITIAL	2	29.850	0.09	5.00					8.40	
INITIAL	3	29.850	0.10	5.00					7.50	
INITIAL	4	29.850	0.10	5.00					15.40	

ENDATA11

!Reaeration, Sediment Oxygen Demand and BOD Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8-----9

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

!2345678901234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****----- *****-----*****-----*****-----*****-----*****-----***

	R#	REA	KL	MIN	SOD	BOD 1	DECAY	SETT	BOD 2	DECAY	SETT
COEF-1	1	11.00	0.70	0.0	0.0	0.97	0.2147	0.20	0.0	0.0305	0.1
COEF-1	2	11.00	0.70	0.0	0.0	1.06	0.1431	0.20	0.0	0.0305	0.1
COEF-1	3	11.00	0.70	0.0	0.0	0.34	0.1402	0.20	0.0	0.0196	0.1
COEF-1	4	11.00	0.70	0.0	0.0	0.88	0.1373	0.20	0.0	0.0195	0.1

ENDATA12

Nitrogen and Phosphorus Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----

	R#	NBOD	NBOD
COEF-2	1	0.1247	0.20
COEF-2	2	0.1184	0.20
COEF-2	3	0.1047	0.20
COEF-2	4	0.1253	0.20

ENDATA13

ENDATA14

Coliform and Nonconservative Coffers

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----

ENDATA15

Incremental Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----

	R#	OUTFLOW	INFLOW	TEMP	SALINITY	CHLORIDE	COND
INCR-1	1	0.0	0.0000	00.000	0.0	0.00	0.0
INCR-1	2	0.0	0.24489	29.850	0.0	0.00	0.0
INCR-1	3	0.0	0.0000	00.000	0.0	0.00	0.0
INCR-1	4	0.0	0.0000	00.000	0.0	0.00	0.0

ENDATA16

Incremental Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
!
*** -----*****-----*****-----*****-----*****
!
!      R#      DO      BOD 1      NBOD      NH3 N      NIT NIT      BOD 2
INCR-2      1      0.00      0.00      0.00
INCR-2      2      2.00      0.00      0.00
INCR-2      3      0.00      0.00      0.00
INCR-2      4      0.00      0.00      0.00
ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****
!
!      R#      PHOSPH      CHL A      COLIFORM      NONCONSERVATIVE
INCR-3      1      0.000
INCR-3      2      0.000
INCR-3      3      0.000
INCR-3      4      0.000
ENDATA18

!Nonpoint Source Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****-----*****
!
!      R#      BOD 1      NBOD      COLIFORM      NONCONS      DO      BOD 2
NONPOINT     1      100.0      14.69      0.0      0.0000      0.0      15.63
NONPOINT     2      0.0      0.0      0.0      0.0000      0.0      0.00
NONPOINT     3      0.0      0.0      0.0      0.0000      0.0      12.50
NONPOINT     4      84.38      21.88      0.0      0.0000      0.0      7.81
ENDATA19

!Headwater Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** ----- *** -----*****-----*****-----*****
!
!      E#      NAME          FLOW      TEMP      SALIN      CHLORIDE      COND
HDWTR-1     1      HEADWATER      0.      0.78551      29.850      0.12      11.5      252.4
ENDATA20

!Headwater Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****-----*****
!
!      E#      DO      BOD 1      NBOD      NH3 N      NIT NIT      BOD 2
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

HDWTR-2 1 6.82 1.14 0.72 0.00 0.00 1.27

ENDATA21

!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

HDWTR-3 1 11.3

ENDATA22

ENDATA23

!Wasteload Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*****-----*

! E# NAME FLOW TEMP SALINITY CHLORIDE COND

WSTLD-1 53 ST. LOUIS CANAL 0.0028 29.85 0.27 19.3 589.7

ENDATA24

!Wasteload Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*****-----*

! E# DO BOD 1 NBOD NH3 N NIT NIT BOD 2

WSTLD-2 53 5.00 1.80 0.80 0.00 0.00 1.17

ENDATA25

!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

WSTLD-3 53

ENDATA26

LOWER BC TEMPERATURE = 29.85

LOWER BC SALINITY = 0.13

LOWER BC CONSERVATIVE MATERIAL I = 17.90

LOWER BC CONSERVATIVE MATERIAL II = 278.30

LOWER BC DISSOLVED OXYGEN = 5.00

LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 4.63

LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND = 3.59

LOWER BC CHLOROPHYLL A = 20.00

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

```
LOWER BC NBOD = 2.27
ENDATA27
!Dam Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 4 INCREMENT = 0.1
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
PLOT RCH 1 2 3 4
ENDATA30
OVERLAY 1 pcaiovlpjproj.txt :MAINSTEM
ENDATA31
```

BAYOU PETIT CAILLOU SUMMER PROJECTION OUTPUT DATA SET

LA-QUAL Version 6.10
Louisiana Department of Environmental Quality
Input file is D:\Petit Caillou\120503\Input Files\pcaiwin75.txt
Output produced at 09:11 on 01/05/2005

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 PETIT CAILLOU WATERSHED MODEL
TITLE02 PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION
CNTRLO4 YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01	NO	TEMPERATURE	
MODOPT02	NO	SALINITY	
MODOPT03	YES	CONSERVATIVE MATERIAL I = CHLORIDES	IN MG/L
MODOPT04	YES	CONSERVATIVE MATERIAL II = CONDUCTIVITY	IN MG/L
MODOPT05	YES	DISSOLVED OXYGEN	
MODOPT06	YES	BOD1 BIOCHEMICAL OXYGEN DEMAND	
MODOPT07	YES	BOD2 BIOCHEMICAL OXYGEN DEMAND	
MODOPT08	YES	NBOD OXYGEN DEMAND	
MODOPT10	NO	PHOSPHORUS	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

MODOPT11 NO CHLOROPHYLL A
 MODOPT12 NO MACROPHYTES
 MODOPT13 NO COLIFORM
 ENDDATA02

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	K1 MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)
PROGRAM	K2 MAXIMUM	= 25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	= 2.00000 (values entered as per day)
PROGRAM	OCEAN EXCHANGE RATIO	= 0.00000

ENDDATA03

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
-----------	-----------	-------------

ENDDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDDATA05

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDDATA06

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

ENDDATA07

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN	END	ELEM	REACH	ELEMS	BEGIN	END	
				REACH	REACH	LENGTH	LENGTH	PER RCH	ELEM	ELEM	
				km	km	km	km	NUM	NUM	NUM	
REACH ID	1	PC	HEADWATER - SITE 2	8.30	TO	6.20	0.1000	2.10	21	1	21
REACH ID	2	PC	SITE 2 - SITE 3A	6.20	TO	3.20	0.1000	3.00	30	22	51
REACH ID	3	PC	SITE 3A - SITE 4	3.20	TO	2.90	0.1000	0.30	3	52	54
REACH ID	4	PC	SITE 4 - SITE 5	2.90	TO	0.00	0.1000	2.90	29	55	83

ENDDATA08

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH "A"	WIDTH "B"	WIDTH "C"	DEPTH "D"	DEPTH "E"	DEPTH "F"	SLOPE	MANNINGS "N"
-----------	-------	----	-----------	-----------	-----------	-----------	-----------	-----------	-------	--------------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

HYDR-1	1	PC	0.000	0.000	28.956	0.000	0.000	0.978	0.00000	0.000
HYDR-1	2	PC	0.000	0.000	31.699	0.000	0.000	0.884	0.00000	0.000
HYDR-1	3	PC	0.000	0.000	19.782	0.000	0.000	1.039	0.00000	0.000
HYDR-1	4	PC	0.000	0.000	28.377	0.000	0.000	1.457	0.00000	0.000

ENDATA09

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
------	------	-------	----	----------------	-------------------	-------------------	-------------------	-------------------

HYDR	1	PC	0.00	0.244	0.000	0.000	0.000
HYDR	2	PC	0.00	0.244	0.000	0.000	0.000
HYDR	3	PC	0.00	0.244	0.000	0.000	0.000
HYDR	4	PC	0.00	1.167	0.000	0.000	0.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
------	------	-------	----	------	-------	----	-----	-------	------	-------	-------

INITIAL	1	PC	23.40	0.12	5.00	0.00	0.00	0.00	11.30	0.00
INITIAL	2	PC	23.40	0.09	5.00	0.00	0.00	0.00	8.40	0.00
INITIAL	3	PC	23.40	0.10	5.00	0.00	0.00	0.00	7.50	0.00
INITIAL	4	PC	23.40	0.10	5.00	0.00	0.00	0.00	15.40	0.00

ENDATA11

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD	RCH	RCH	K2	K2	K2	BKGRND	BOD	BOD	ANAER	BOD2	ANAER
TYPE	NUM	ID	OPT	"A"	"B"	SOD	DECAY	SETT	CONV	BOD2	CONV
						g/m ² /d	per day	m/d	TO SOD	DECAY	BOD2

COEF-1	1	PC	11 TEXAS	0.700	0.000	0.000	0.970	0.215	0.200	0.000	0.031	0.100	0.000
COEF-1	2	PC	11 TEXAS	0.700	0.000	0.000	1.060	0.143	0.200	0.000	0.031	0.100	0.000
COEF-1	3	PC	11 TEXAS	0.700	0.000	0.000	0.340	0.140	0.200	0.000	0.020	0.100	0.000
COEF-1	4	PC	11 TEXAS	0.700	0.000	0.000	0.880	0.137	0.200	0.000	0.020	0.100	0.000

ENDATA12

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	NBOD	NBOD	ORGN CONV	NH3	NH3	PHOS	DENIT
				DECA	SETT	TO NH3 SRCE	DECA	SRCE	SRCE	RATE

COEF-2	1	PC	0.125	0.200	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	PC	0.118	0.200	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	PC	0.105	0.200	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	PC	0.125	0.200	0.000	0.000	0.000	0.000	0.000	0.000

ENDATA13

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	SECCHI	ALGAE:	ALGAE	ALG CONV	ALGAE	ALGAE	MACRO	MACRO
				DEPTH	CHL A	SETT	TO SOD	GROW	RESP	GROW	RESP

ENDATA14

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
-----------	-------	----	---------------------	--------------	-------------	--------------------

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	PC	0.00000	0.24489	23.40	0.00	0.00	0.00	0.08163	0.00000
INCR-1	3	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	4	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2		
INCR-2	1	PC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	2	PC	2.00	0.00	0.00	0.00	0.00	0.00
INCR-2	3	PC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4	PC	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	PC	0.00	0.00	0.00	0.00
INCR-3	2	PC	0.00	0.00	0.00	0.00
INCR-3	3	PC	0.00	0.00	0.00	0.00
INCR-3	4	PC	0.00	0.00	0.00	0.00

ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	PC	100.00	14.69	0.00	0.00	0.00	15.63
NONPOINT	2	PC	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	PC	0.00	0.00	0.00	0.00	0.00	12.50
NONPOINT	4	PC	84.38	21.88	0.00	0.00	0.00	7.81

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
HDWTR-1	1	HEADWATER	0	0.78551	27.737	23.40	0.12	11.500	252.000

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
HDWTR-2	1	HEADWATER	7.66	1.14	0.72	0.00	0.00	1.27
ENDATA21								

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3	1	HEADWATER	0.00	11.30	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER KILOM	NAME
-----------	---------------------	-------------------	----------------	------

ENDATA23

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	53	3.10	ST. LOUIS CANAL	0.02800	0.98870	0.639	23.40	0.27	19.300	589.700
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	NITRIF mg/L	BOD#2 mg/L
WSTLD-2	53	ST. LOUIS CANAL	5.00	1.80	0.00	0.80	0.00	0.00	0.00
ENDATA25									

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
WSTLD-3	53	ST. LOUIS CANAL	0.00	0.00	0.00	0.00
ENDATA26						

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 23.400 deg C
LOWER BC	SALINITY	= 0.130 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 17.900 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 278.300 MG/L
LOWER BC	DISSOLVED OXYGEN	= 5.000 mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 4.630 mg/L
LOWER BC	BOD2 BIOCHEMICAL OXYGEN DEMAND	= 3.590 mg/L
LOWER BC	CHLOROPHYLL A	= 20.000 µg/L

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
LOWER BC      NBOD          =      2.270      mg/L
ENDATA27
```

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

```
CARD TYPE     ELEMENT    NAME          EQN      "A"      "B"      "H"
```

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

```
CARD TYPE     PARAMETER   COL 1    COL 2    COL 3    COL 4    COL 5    COL 6    COL 7    COL 8
```

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

```
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 4
PLOT RCH 1 2 3 4
ENDATA30
```

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

```
OVERLAY 1 pcaiovlpjroj.txt          :MAINSTEM
ENDATA31
```

```
.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 3 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11
```

```
FINAL REPORT    HEADWATER          PETIT CAILLOU WATERSHED MODEL
REACH NO. 1     HEADWATER - SITE 2          PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION
```

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP	SALN	CM-I	CM-II	DO	BOD#1	BOD#2	EBOD#1	EBOD#2	ORGN	NH3	NO3+2	PHOS	CHL A	COLI	NCM
			deg C	ppt	MG/L	MG/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	#/100mL	
1	HDWTR	0.78551	23.40	0.12	11.50	252.00	7.66	1.14	1.27	1.14	1.27	0.72	0.00	0.00	0.00	11.30	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m³/s	m/s	m/s	days	m	m	m³	m²	m²	m³	m/s	m²/s	m/s

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

1	8.30	8.20	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
2	8.20	8.10	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
3	8.10	8.00	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
4	8.00	7.90	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
5	7.90	7.80	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
6	7.80	7.70	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
7	7.70	7.60	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
8	7.60	7.50	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
9	7.50	7.40	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
10	7.40	7.30	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
11	7.30	7.20	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
12	7.20	7.10	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
13	7.10	7.00	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
14	7.00	6.90	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
15	6.90	6.80	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
16	6.80	6.70	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
17	6.70	6.60	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
18	6.60	6.50	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
19	6.50	6.40	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
20	6.40	6.30	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
21	6.30	6.20	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028
TOT						0.88			59469.85		60807.61				
Avg						0.02774			0.98		28.96				
CUM						0.88					28.32				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER 1/da	BOD#1 RATE 1/da	BOD#1 DECAY 1/da	ABOD#1 SETT 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI 1/da	NCM DECAY 1/da	NCM SETT 1/da	
1	8.200	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00	
2	8.100	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00	
3	8.000	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00	
4	7.900	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	
5	7.800	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	
6	7.700	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00	
7	7.600	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	
8	7.500	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	
9	7.400	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	
10	7.300	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	
11	7.200	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	
12	7.100	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	
13	7.000	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00	
14	6.900	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00	
15	6.800	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00	
16	6.700	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00	
17	6.600	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	
18	6.500	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00	
19	6.400	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	
20	6.300	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	
21	6.200	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C RATE	0.74	0.21	0.20	0.00	0.03	0.10	0.00	0.97				0.12	0.20	0.00	0.00	0.00				0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
1	8.200	23.40	0.12	11.50	252.00	7.64	1.19	1.27	1.19	1.27	0.72	0.00	0.00	0.00	0.00	11.16	0.00	0.	0.00
2	8.100	23.40	0.12	11.50	252.00	7.63	1.24	1.28	1.24	1.28	0.72	0.00	0.00	0.00	0.00	11.02	0.00	0.	0.00
3	8.000	23.40	0.12	11.50	252.00	7.61	1.28	1.28	1.28	1.28	0.72	0.00	0.00	0.00	0.00	10.89	0.00	0.	0.00
4	7.900	23.40	0.11	11.50	252.00	7.60	1.33	1.28	1.33	1.28	0.72	0.00	0.00	0.00	0.00	10.75	0.00	0.	0.00
5	7.800	23.40	0.11	11.50	252.00	7.58	1.37	1.29	1.37	1.29	0.72	0.00	0.00	0.00	0.00	10.61	0.00	0.	0.00
6	7.700	23.40	0.11	11.50	252.00	7.57	1.41	1.29	1.41	1.29	0.72	0.00	0.00	0.00	0.00	10.47	0.00	0.	0.00
7	7.600	23.40	0.11	11.50	252.00	7.55	1.45	1.29	1.45	1.29	0.71	0.00	0.00	0.00	0.00	10.33	0.00	0.	0.00
8	7.500	23.40	0.11	11.50	252.00	7.53	1.49	1.30	1.49	1.30	0.71	0.00	0.00	0.00	0.00	10.20	0.00	0.	0.00
9	7.400	23.40	0.11	11.50	252.00	7.52	1.53	1.30	1.53	1.30	0.71	0.00	0.00	0.00	0.00	10.06	0.00	0.	0.00
10	7.300	23.40	0.11	11.50	252.00	7.50	1.57	1.30	1.57	1.30	0.71	0.00	0.00	0.00	0.00	9.92	0.00	0.	0.00
11	7.200	23.40	0.10	11.50	252.00	7.48	1.61	1.31	1.61	1.31	0.71	0.00	0.00	0.00	0.00	9.78	0.00	0.	0.00
12	7.100	23.40	0.10	11.50	252.00	7.47	1.65	1.31	1.65	1.31	0.71	0.00	0.00	0.00	0.00	9.64	0.00	0.	0.00
13	7.000	23.40	0.10	11.50	252.00	7.45	1.69	1.31	1.69	1.31	0.71	0.00	0.00	0.00	0.00	9.50	0.00	0.	0.00
14	6.900	23.40	0.10	11.50	252.00	7.43	1.72	1.31	1.72	1.31	0.71	0.00	0.00	0.00	0.00	9.37	0.00	0.	0.00
15	6.800	23.40	0.10	11.50	252.00	7.41	1.76	1.32	1.76	1.32	0.71	0.00	0.00	0.00	0.00	9.23	0.00	0.	0.00
16	6.700	23.40	0.10	11.50	252.00	7.40	1.80	1.32	1.80	1.32	0.71	0.00	0.00	0.00	0.00	9.09	0.00	0.	0.00
17	6.600	23.40	0.10	11.50	252.00	7.38	1.83	1.32	1.83	1.32	0.71	0.00	0.00	0.00	0.00	8.95	0.00	0.	0.00
18	6.500	23.40	0.09	11.50	252.00	7.36	1.86	1.33	1.86	1.33	0.71	0.00	0.00	0.00	0.00	8.81	0.00	0.	0.00
19	6.400	23.40	0.09	11.50	252.00	7.34	1.90	1.33	1.90	1.33	0.71	0.00	0.00	0.00	0.00	8.68	0.00	0.	0.00
20	6.300	23.40	0.09	11.50	251.98	7.32	1.93	1.33	1.93	1.33	0.71	0.00	0.00	0.00	0.00	8.54	0.00	0.	0.00
21	6.200	23.40	0.09	11.49	251.77	7.30	1.95	1.33	1.95	1.33	0.71	0.00	0.00	0.00	0.00	8.40	0.00	0.	0.00

FINAL REPORT
 REACH NO. 2 HEADWATER
 SITE 2 - SITE 3A

PETIT CAILLO WATERSHED MODEL
 PETIT CAILLO WINTER PROJECTION RUN 75% REDUCTION

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
22	UPR RCH	0.78551	23.40	0.09	11.49	251.77	7.30	1.95	1.33	1.95	1.33	0.71	0.00	0.00	0.00	8.40	0.00	0.00
EACH	INCR	0.00816	23.40	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW	PCT EFF	ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
	km	km	m ³ /s		m/s	days	m	m	m ³	m ²	m ²	m ³	m/s	m ² /s	m/s
22	6.20	6.10	0.79367	0.0	0.02832	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.028
23	6.10	6.00	0.80184	0.0	0.02861	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029
24	6.00	5.90	0.81000	0.0	0.02891	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029
25	5.90	5.80	0.81816	0.0	0.02920	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029
26	5.80	5.70	0.82632	0.0	0.02949	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029
27	5.70	5.60	0.83449	0.0	0.02978	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.030
28	5.60	5.50	0.84265	0.0	0.03007	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.030

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

29	5.50	5.40	0.85081	0.0	0.03036	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.030
30	5.40	5.30	0.85898	0.0	0.03065	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.031
31	5.30	5.20	0.86714	0.0	0.03095	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.031
32	5.20	5.10	0.87530	0.0	0.03124	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.031
33	5.10	5.00	0.88347	0.0	0.03153	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
34	5.00	4.90	0.89163	0.0	0.03182	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
35	4.90	4.80	0.89979	0.0	0.03211	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
36	4.80	4.70	0.90795	0.0	0.03240	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
37	4.70	4.60	0.91612	0.0	0.03269	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.033
38	4.60	4.50	0.92428	0.0	0.03298	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.033
39	4.50	4.40	0.93244	0.0	0.03328	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.033
40	4.40	4.30	0.94061	0.0	0.03357	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
41	4.30	4.20	0.94877	0.0	0.03386	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
42	4.20	4.10	0.95693	0.0	0.03415	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
43	4.10	4.00	0.96510	0.0	0.03444	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
44	4.00	3.90	0.97326	0.0	0.03473	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.035
45	3.90	3.80	0.98142	0.0	0.03502	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.035
46	3.80	3.70	0.98958	0.0	0.03531	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.035
47	3.70	3.60	0.99775	0.0	0.03561	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
48	3.60	3.50	1.00591	0.0	0.03590	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
49	3.50	3.40	1.01407	0.0	0.03619	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
50	3.40	3.30	1.02224	0.0	0.03648	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
51	3.30	3.20	1.03040	0.0	0.03677	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.037
TOT						1.07			84065.77	95096.98					
Avg					0.03235		0.88	31.70			28.02				
CUM						1.95									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT DECAY 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da
22	6.100	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
23	6.000	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
24	5.900	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
25	5.800	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
26	5.700	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
27	5.600	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
28	5.500	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
29	5.400	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
30	5.300	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
31	5.200	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
32	5.100	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
33	5.000	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
34	4.900	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
35	4.800	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
36	4.700	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
37	4.600	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
38	4.500	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
39	4.400	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
40	4.300	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
41	4.200	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
42	4.100	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00
43	4.000	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

44	3.900	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
45	3.800	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
46	3.700	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
47	3.600	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00
48	3.500	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00
49	3.400	8.51	0.93	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00
50	3.300	8.51	0.93	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00
51	3.200	8.51	0.93	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00

AVG 20 DEG C RATE 0.84 0.14 0.20 0.00 0.03 0.10 0.00 1.06 0.12 0.20 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
22	6.100	23.40	0.09	11.37	249.19	7.23	1.90	1.31	1.90	1.31	0.69	0.00	0.00	0.00	0.00	8.37	0.00	0.	0.00
23	6.000	23.40	0.09	11.26	246.66	7.17	1.86	1.29	1.86	1.29	0.67	0.00	0.00	0.00	0.00	8.34	0.00	0.	0.00
24	5.900	23.40	0.09	11.14	244.18	7.11	1.81	1.27	1.81	1.27	0.65	0.00	0.00	0.00	0.00	8.31	0.00	0.	0.00
25	5.800	23.40	0.09	11.03	241.74	7.05	1.76	1.25	1.76	1.25	0.64	0.00	0.00	0.00	0.00	8.28	0.00	0.	0.00
26	5.700	23.40	0.09	10.92	239.36	7.00	1.72	1.23	1.72	1.23	0.62	0.00	0.00	0.00	0.00	8.25	0.00	0.	0.00
27	5.600	23.40	0.09	10.82	237.02	6.95	1.68	1.21	1.68	1.21	0.61	0.00	0.00	0.00	0.00	8.22	0.00	0.	0.00
28	5.500	23.40	0.09	10.71	234.73	6.90	1.64	1.19	1.64	1.19	0.60	0.00	0.00	0.00	0.00	8.19	0.00	0.	0.00
29	5.400	23.40	0.09	10.61	232.48	6.85	1.60	1.18	1.60	1.18	0.58	0.00	0.00	0.00	0.00	8.16	0.00	0.	0.00
30	5.300	23.40	0.09	10.51	230.28	6.81	1.56	1.16	1.56	1.16	0.57	0.00	0.00	0.00	0.00	8.13	0.00	0.	0.00
31	5.200	23.40	0.09	10.41	228.11	6.77	1.53	1.14	1.53	1.14	0.56	0.00	0.00	0.00	0.00	8.10	0.00	0.	0.00
32	5.100	23.40	0.09	10.31	225.99	6.74	1.49	1.13	1.49	1.13	0.54	0.00	0.00	0.00	0.00	8.07	0.00	0.	0.00
33	5.000	23.40	0.09	10.22	223.90	6.70	1.46	1.11	1.46	1.11	0.53	0.00	0.00	0.00	0.00	8.04	0.00	0.	0.00
34	4.900	23.40	0.09	10.12	221.85	6.67	1.42	1.09	1.42	1.09	0.52	0.00	0.00	0.00	0.00	8.01	0.00	0.	0.00
35	4.800	23.40	0.09	10.03	219.84	6.64	1.39	1.08	1.39	1.08	0.51	0.00	0.00	0.00	0.00	7.98	0.00	0.	0.00
36	4.700	23.40	0.10	9.94	217.87	6.61	1.36	1.06	1.36	1.06	0.50	0.00	0.00	0.00	0.00	7.95	0.00	0.	0.00
37	4.600	23.40	0.10	9.85	215.93	6.58	1.33	1.05	1.33	1.05	0.49	0.00	0.00	0.00	0.00	7.92	0.00	0.	0.00
38	4.500	23.40	0.10	9.77	214.03	6.56	1.30	1.03	1.30	1.03	0.48	0.00	0.00	0.00	0.00	7.89	0.00	0.	0.00
39	4.400	23.40	0.10	9.68	212.16	6.53	1.27	1.02	1.27	1.02	0.47	0.00	0.00	0.00	0.00	7.86	0.00	0.	0.00
40	4.300	23.40	0.10	9.60	210.32	6.51	1.24	1.01	1.24	1.01	0.46	0.00	0.00	0.00	0.00	7.83	0.00	0.	0.00
41	4.200	23.40	0.10	9.52	208.51	6.49	1.22	0.99	1.22	0.99	0.45	0.00	0.00	0.00	0.00	7.80	0.00	0.	0.00
42	4.100	23.40	0.10	9.43	206.73	6.47	1.19	0.98	1.19	0.98	0.44	0.00	0.00	0.00	0.00	7.77	0.00	0.	0.00
43	4.000	23.40	0.10	9.35	204.99	6.45	1.17	0.97	1.17	0.97	0.43	0.00	0.00	0.00	0.00	7.74	0.00	0.	0.00
44	3.900	23.40	0.10	9.28	203.27	6.43	1.14	0.95	1.14	0.95	0.42	0.00	0.00	0.00	0.00	7.71	0.00	0.	0.00
45	3.800	23.40	0.10	9.20	201.58	6.41	1.12	0.94	1.12	0.94	0.41	0.00	0.00	0.00	0.00	7.68	0.00	0.	0.00
46	3.700	23.40	0.10	9.12	199.92	6.40	1.10	0.93	1.10	0.93	0.40	0.00	0.00	0.00	0.00	7.65	0.00	0.	0.00
47	3.600	23.40	0.10	9.05	198.29	6.38	1.07	0.92	1.07	0.92	0.40	0.00	0.00	0.00	0.00	7.62	0.00	0.	0.00
48	3.500	23.40	0.10	8.98	196.68	6.37	1.05	0.91	1.05	0.91	0.39	0.00	0.00	0.00	0.00	7.59	0.00	0.	0.00
49	3.400	23.40	0.10	8.90	195.10	6.36	1.03	0.89	1.03	0.89	0.38	0.00	0.00	0.00	0.00	7.56	0.00	0.	0.00
50	3.300	23.40	0.10	8.83	193.55	6.34	1.01	0.88	1.01	0.88	0.37	0.00	0.00	0.00	0.00	7.53	0.00	0.	0.00
51	3.200	23.40	0.10	8.77	192.14	6.34	0.99	0.88	0.99	0.88	0.37	0.00	0.00	0.00	0.00	7.50	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 3 SITE 3A - SITE 4PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

***** REACH INPUTS *****

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
52	UPR RCH	1.03040	23.40	0.10	8.77	192.14	6.34	0.99	0.88	0.99	0.88	0.37	0.00	0.00	0.00	7.50	0.00	0.00
53	WSTLD	0.02800	23.40	0.27	19.30	589.70	5.00	1.80	1.17	1.80	1.17	0.80	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s	
52	3.20	3.10	1.03040	0.0	0.05013	0.02	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.050	
53	3.10	3.00	1.05840	2.6	0.05149	0.02	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.051	
54	3.00	2.90	1.05840	2.6	0.05149	0.02	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.051	
TOT						0.07			6166.05	5934.60						
Avg						0.05103										
CUM						2.02										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT DECAY 1/d	PO4 SRCE *	ALG RATE 1/d	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d	
52	3.100	8.51	0.88	0.16	0.22	0.00	0.02	0.11	0.00	0.42	0.42	0.42	0.13	0.22	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	
53	3.000	8.51	0.88	0.16	0.22	0.00	0.02	0.11	0.00	0.42	0.42	0.42	0.13	0.22	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	
54	2.900	8.51	0.88	0.16	0.22	0.00	0.02	0.11	0.00	0.42	0.42	0.42	0.13	0.22	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.82	0.14	0.20	0.00	0.02	0.10	0.00	0.34			0.10	0.20	0.00	0.00	0.00	0.00			0.00	0.00	0.00

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP deg C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
52	3.100	23.40	0.10	8.77	192.60	6.38	0.98	0.92	0.98	0.92	0.37	0.00	0.00	0.00	0.00	10.13	0.00	0.	0.00
53	3.000	23.40	0.10	9.05	202.63	6.39	1.00	0.97	1.00	0.97	0.37	0.00	0.00	0.00	0.00	12.77	0.00	0.	0.00
54	2.900	23.40	0.10	9.05	202.63	6.44	0.99	1.01	0.99	1.01	0.37	0.00	0.00	0.00	0.00	15.40	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 4 SITE 4 - SITE 5PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
55	UPR RCH	1.05840	23.40	0.10	9.05	202.63	6.44	0.99	1.01	0.99	1.01	0.37	0.00	0.00	0.00	15.40	0.00	0.00

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s
55	2.90	2.80	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
56	2.80	2.70	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
57	2.70	2.60	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
58	2.60	2.50	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
59	2.50	2.40	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
60	2.40	2.30	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
61	2.30	2.20	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
62	2.20	2.10	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
63	2.10	2.00	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
64	2.00	1.90	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
65	1.90	1.80	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
66	1.80	1.70	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
67	1.70	1.60	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
68	1.60	1.50	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
69	1.50	1.40	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
70	1.40	1.30	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
71	1.30	1.20	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
72	1.20	1.10	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
73	1.10	1.00	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
74	1.00	0.90	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
75	0.90	0.80	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
76	0.80	0.70	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
77	0.70	0.60	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
78	0.60	0.50	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
79	0.50	0.40	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
80	0.40	0.30	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
81	0.30	0.20	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
82	0.20	0.10	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
83	0.10	0.00	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026
TOT						1.31			119901.39		82293.30				
AVG						0.02560			1.46		28.38		41.35		
CUM						3.33									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST mg/L	SAT D.O. 1/d	REAER RATE 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 PROD **	ALG PROD **	MAC DECY 1/d	COLI DECY 1/d	NCM DECY 1/d	NCM SETT 1/d
55	2.800	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.00	0.00
56	2.700	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00
57	2.600	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00	0.00
58	2.500	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00
59	2.400	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00
60	2.300	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.96	0.00	0.00	0.00	0.00	0.00
61	2.200	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.00
62	2.100	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

63	2.000	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	
64	1.900	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00	
65	1.800	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	
66	1.700	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.01	0.00	0.00	0.00	0.00	0.00	
67	1.600	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.00	0.00	0.00	
68	1.500	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.03	0.00	0.00	0.00	0.00	0.00	
69	1.400	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00	
70	1.300	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	
71	1.200	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	
72	1.100	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.07	0.00	0.00	0.00	0.00	0.00	
73	1.000	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.00	
74	0.900	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00	
75	0.800	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	0.00	0.00	
76	0.700	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	
77	0.600	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	0.00	0.00	
78	0.500	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.12	0.00	0.00	0.00	0.00	0.00	
79	0.400	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.00	
80	0.300	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.14	0.00	0.00	0.00	0.00	0.00	
81	0.200	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00	
82	0.100	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.16	0.00	0.00	0.00	0.00	0.00	
83	0.000	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.51	0.14	0.20	0.00	0.02	0.10	0.00	0.88			0.13	0.20	0.00	0.00	0.00	0.00		0.00	0.00	0.00		

* g/m²/d ** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
55	2.800	23.40	0.10	9.05	202.63	6.50	1.01	1.00	1.01	1.00	0.37	0.00	0.00	0.00	15.56	0.00	0.	0.00	
56	2.700	23.40	0.10	9.05	202.63	6.54	1.02	1.00	1.02	1.00	0.38	0.00	0.00	0.00	15.72	0.00	0.	0.00	
57	2.600	23.40	0.10	9.05	202.63	6.58	1.04	1.00	1.04	1.00	0.38	0.00	0.00	0.00	15.88	0.00	0.	0.00	
58	2.500	23.40	0.10	9.05	202.63	6.63	1.05	1.00	1.05	1.00	0.38	0.00	0.00	0.00	16.03	0.00	0.	0.00	
59	2.400	23.40	0.11	9.05	202.63	6.67	1.06	0.99	1.06	0.99	0.38	0.00	0.00	0.00	16.19	0.00	0.	0.00	
60	2.300	23.40	0.11	9.05	202.63	6.71	1.08	0.99	1.08	0.99	0.38	0.00	0.00	0.00	16.35	0.00	0.	0.00	
61	2.200	23.40	0.11	9.05	202.63	6.75	1.09	0.99	1.09	0.99	0.39	0.00	0.00	0.00	16.51	0.00	0.	0.00	
62	2.100	23.40	0.11	9.05	202.63	6.79	1.10	0.98	1.10	0.98	0.39	0.00	0.00	0.00	16.67	0.00	0.	0.00	
63	2.000	23.40	0.11	9.05	202.63	6.83	1.12	0.98	1.12	0.98	0.39	0.00	0.00	0.00	16.83	0.00	0.	0.00	
64	1.900	23.40	0.11	9.05	202.63	6.87	1.13	0.98	1.13	0.98	0.39	0.00	0.00	0.00	16.99	0.00	0.	0.00	
65	1.800	23.40	0.11	9.05	202.63	6.91	1.14	0.98	1.14	0.98	0.39	0.00	0.00	0.00	17.14	0.00	0.	0.00	
66	1.700	23.40	0.11	9.05	202.63	6.95	1.15	0.97	1.15	0.97	0.39	0.00	0.00	0.00	17.30	0.00	0.	0.00	
67	1.600	23.40	0.11	9.05	202.63	6.98	1.17	0.97	1.17	0.97	0.40	0.00	0.00	0.00	17.46	0.00	0.	0.00	
68	1.500	23.40	0.11	9.05	202.63	7.02	1.18	0.97	1.18	0.97	0.40	0.00	0.00	0.00	17.62	0.00	0.	0.00	
69	1.400	23.40	0.12	9.05	202.63	7.06	1.19	0.96	1.19	0.96	0.40	0.00	0.00	0.00	17.78	0.00	0.	0.00	
70	1.300	23.40	0.12	9.05	202.63	7.09	1.20	0.96	1.20	0.96	0.40	0.00	0.00	0.00	17.94	0.00	0.	0.00	
71	1.200	23.40	0.12	9.05	202.63	7.13	1.21	0.96	1.21	0.96	0.40	0.00	0.00	0.00	18.10	0.00	0.	0.00	
72	1.100	23.40	0.12	9.05	202.63	7.16	1.22	0.96	1.22	0.96	0.40	0.00	0.00	0.00	18.26	0.00	0.	0.00	
73	1.000	23.40	0.12	9.05	202.63	7.19	1.23	0.95	1.23	0.95	0.41	0.00	0.00	0.00	18.41	0.00	0.	0.00	
74	0.900	23.40	0.12	9.05	202.63	7.23	1.24	0.95	1.24	0.95	0.41	0.00	0.00	0.00	18.57	0.00	0.	0.00	
75	0.800	23.40	0.12	9.05	202.63	7.26	1.25	0.95	1.25	0.95	0.41	0.00	0.00	0.00	18.73	0.00	0.	0.00	
76	0.700	23.40	0.12	9.05	202.63	7.29	1.26	0.95	1.26	0.95	0.41	0.00	0.00	0.00	18.89	0.00	0.	0.00	
77	0.600	23.40	0.12	9.05	202.63	7.33	1.27	0.94	1.27	0.94	0.41	0.00	0.00	0.00	19.05	0.00	0.	0.00	
78	0.500	23.40	0.12	9.05	202.63	7.36	1.28	0.94	1.28	0.94	0.41	0.00	0.00	0.00	19.21	0.00	0.	0.00	
79	0.400	23.40	0.13	9.05	202.63	7.39	1.29	0.94	1.29	0.94	0.41	0.00	0.00	0.00	19.37	0.00	0.	0.00	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

80	0.300	23.40	0.13	9.05	202.63	7.42	1.30	0.93	1.30	0.93	0.41	0.00	0.00	0.00	0.00	19.52	0.00	0.	0.00
81	0.200	23.40	0.13	9.05	202.63	7.45	1.31	0.93	1.31	0.93	0.42	0.00	0.00	0.00	0.00	19.68	0.00	0.	0.00
82	0.100	23.40	0.13	9.05	202.63	7.48	1.32	0.93	1.32	0.93	0.42	0.00	0.00	0.00	0.00	19.84	0.00	0.	0.00
83	0.000	23.40	0.13	9.05	202.63	7.50	1.33	0.93	1.33	0.93	0.42	0.00	0.00	0.00	0.00	20.00	0.00	0.	0.00

STREAM SUMMARY

HEADWATER

PETIT CAILLOU WATERSHED MODEL

PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

TRAVEL TIME = 3.33 DAYS

MAXIMUM EFFLUENT = 2.65 PERCENT

FLOW = 0.78551 TO 1.05840 m³/s

DISPERSION = 0.2440 TO 1.1670 m²/s

VELOCITY = 0.02560 TO 0.05149 m/s

DEPTH = 0.88 TO 1.46 m

WIDTH = 19.78 TO 31.70 m

BOD DECAY = 0.16 TO 0.25 per day

NH3 DECAY = 0.00 TO 0.00 per day

SOD = 0.42 TO 1.31 g/m²/d

NH3 SOURCE = 0.00 TO 0.00 g/m²/d

REAERATION = 0.54 TO 0.93 per day

BOD SETTLING = 0.22 TO 0.22 per day

NBOD DECAY = 0.13 TO 0.15 per day

NBOD SETTLING = 0.22 TO 0.22 per day

TEMPERATURE = 23.40 TO 23.40 deg C

DISSOLVED OXYGEN = 6.34 TO 7.64 mg/L

.....EXECUTION COMPLETED

Bayou Petit Caillou Projection Overlay File

MRK	6.2	Begin Reach 2
MRK	3.2	Begin Reach 3
MRK	2.9	Begin Reach 4
MRK	3.0	St. Louis Canal
STD 5	5.0	8.3 0.0
END		

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix B4 – Winter Justifications

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPE 3 - PROGRAM CONSTANTS			
CONSTANT NAME	VALUE	UNITS	DATA SOURCE
OCEAN EXCHANGE RATIO	0		This was done to allow dispersion in the model but not to force the bottom element through the boundary conditions.
KL MINIMUM	0.7	m/day	The minimum KL of 2.3 ft/day converted to 0.70 m/day.
K2 MAXIMUM	25	1/day at 20 deg C	EPA Policy in the absence of a measured value.
HYDRAULIC CALCULATION METHOD	2		The low slopes in this waterbody cause a substantial amount of water to be present during critical flow conditions, making the Leopold relationships inaccurate. This method allows the model to predict a more accurate depth and width during low flow conditions.
SETTLING RATE UNITS	2		By making the settling rate a velocity the rate becomes dependent upon the depth.

DATA TYPE 8 - REACH IDENTIFICATION DATA					
Reach	ID	Name	Upstream River Kilometer	Downstream River Kilometer	Element Length, kilometers
1	PC	Headwater to Site 2	8.30	6.20	0.1000
2	PC	Site 2 to Site 3A	6.20	3.20	0.1000
3	PC	Site 3A to Site 4	3.20	2.90	0.1000
4	PC	Site 4 to Site 5	2.90	0.00	0.1000

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				
Reach	Name	Width Coeff. "a"	Width Exp. "b"	Data Source	Width Const. "c"	Data Source
1	Headwater to Site 2	0	0	Widths and Depths assumed constant with changes in flow.	28.956	Site 2 Cross Section
2	Site 2 to Site 3A	0	0	Widths and Depths assumed constant with changes in flow.	31.699	Site 3A Cross Section
3	Site 3A to Site 4	0	0	Widths and Depths assumed constant with changes in flow.	19.782	Site 4 Cross Section
4	Site 4 to Site 5	0	0	Widths and Depths assumed constant with changes in flow.	28.377	Site 5 Cross Section

		DATA TYPE 9 - ADVECTIVE HYDRAULIC COEFFICIENTS				
Reach	Name	Depth Coeff. "d"	Depth Exp. "e"	Data Source	Depth Const. "f"	Data Source
1	Headwater to Site 2	0	0	Widths and Depths assumed constant with changes in flow.	0.978	Site 2 Cross Section
2	Site 2 to Site 3A	0	0	Widths and Depths assumed constant with changes in flow.	0.884	Site 3A Cross Section
3	Site 3A to Site 4	0	0	Widths and Depths assumed constant with changes in flow.	1.039	Site 4 Cross Section
4	Site 4 to Site 5	0	0	Widths and Depths assumed constant with changes in flow.	1.457	Site 5 Cross Section

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 10 - DISPERSIVE HYDRAULIC COEFFICIENTS	
Reach	Name	Dispersion Coeff. "a"	Data Source
1	Headwater to Site 2	0.244	Dispersion Calculated from dye study therefore assumed E = a
2	Site 2 to Site 3A	0.244	Dispersion Calculated from dye study therefore assumed E = a
3	Site 3A to Site 4	0.244	Dispersion Calculated from dye study therefore assumed E = a
4	Site 4 to Site 5	1.167	Dispersion Calculated from dye study therefore assumed E = a

DATA TYPE 11 - INITIAL CONDITIONS									
Reach	Name	Temp	Temp Justification	Salinity	Salinity Justification	DO	DO Justification	Chl A	Chl A Justification
1	Headwater to Site 2	23.40	90 th Percentile Temperature for Ambient Site 939	0.12	Site 1 Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	11.3	Site 1 Lab Data
2	Site 2 to Site 3A	23.40	90 th Percentile Temperature for Ambient Site 939	0.09	Site 2 Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	8.4	Site 2 Lab Data
3	Site 3A to Site 4	23.40	90 th Percentile Temperature for Ambient Site 939	0.10	Site 3A Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	7.5	Site 3A Lab Data
4	Site 4 to Site 5	23.40	90 th Percentile Temperature for Ambient Site 939	0.10	Site 4 Insitu	5.0	Dissolved Oxygen Standard for Subsegment 120503	15.4	Site 4 Lab Data

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			
REACH	NAME	K ₂ OPT	Data Source	BKGRND SOD, gmO ₂ /m ² /day at 20 deg C	Data Source
1	Headwater to Site 2	11	Texas Equation	0.97	75% Reduction in total loading to meet criteria.
2	Site 2 to Site 3A	11	Texas Equation	1.06	75% Reduction in total loading to meet criteria.
3	Site 3A to Site 4	11	Texas Equation	0.34	75% Reduction in total loading to meet criteria.
4	Site 4 to Site 5	11	Texas Equation	0.88	75% Reduction in total loading to meet criteria.

DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS			
CBOD 1 Decay	CBOD 1 Decay Justification	CBOD 2 Decay	CBOD 2 Decay Justification
0.2146875	Average (PC1 + PC2)	0.03049479	Average (PC1 + PC2)
0.1430729	Average (PC2 + PC3A)	0.03049479	Average (PC2 + PC3A)
0.1402083	Average (PC3A + PC4)	0.01959103	Average (PC3A + PC4)
0.13734375	Average (PC4 + PC5)	0.01952737	Average (PC4 + PC5)

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

		DATA TYPE 12 - REAERATION, SEDIMENT OXYGEN DEMAND AND BOD COEFFICIENTS		
REACH	NAME	BOD1 SETT RATE (1/day)	BOD2 SETT RATE (1/day)	Data Source
1	Headwater to Site 2	0.2	0.1	Calibration
2	Site 2 to Site 3A	0.2	0.1	Calibration
3	Site 3A to Site 4	0.2	0.1	Calibration
4	Site 4 to Site 5	0.2	0.1	Calibration

DATA TYPE 13 - NBOD COEFFICIENTS			
Reach	Name	NBOD Decay	NBOD Decay Justification
1	Headwater to Site 2	0.12	Average (PC1 + PC2)
2	Site 2 to Site 3A	0.12	Average (PC2 + PC3A)
3	Site 3A to Site 4	0.10	Average (PC3A + PC4)
4	Site 4 to Site 5	0.13	Average (PC4 + PC5)

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

DATA TYPES 16 - INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVE									
Reach	Reach Name	Incr. Outflow, m ³ for ft ³	Incr. Inflow, m ³ for ft ³	Data Source	Temp, deg C, Cont. Mont.	Sal., ppt, Insitu	Chlorides Lab Data	Conductivity Insitu	Data Source
1	Headwater to Site 2								
2	Site 2 to Site 3A		0.24489	PC 3A - PC 2	23.4	0	0	0	90 th Percentile Temperature for Ambient Site 939
3	Site 3A to Site 4								
4	Site 4 to Site 5								

DATA TYPES 17 - INCREMENTAL DATA FOR DO, UCBOD1, UCBOD2, AND NBOD

Reach	Reach Name	DO, mg/l, Cont. Mont.	Data Source
1	Headwater to Site 2		
2	Site 2 to Site 3A	2	Standard Practice for Groundwater Inflow
3	Site 3A to Site 4		
4	Site 4 to Site 5		

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPE 19 - NONPOINT SOURCES						
Reach	Reach Name	Length of Reach, km	UCBOD1, kg/day or lb/day	NBOD, kg/day or lb/day	UCBOD2, kg/day or lb/day	Data Source
1	Headwater to Site 2	2.10	100.0	14.69	15.6	75% Reduction in total loading to meet criteria.
2	Site 2 to Site 3A	3	0.0	0.00	0.0	75% Reduction in total loading to meet criteria.
3	Site 3A to Site 4	0.3	0.0	0.00	12.5	75% Reduction in total loading to meet criteria.
4	Site 4 to Site 5	2.9	84.4	21.88	7.8	75% Reduction in total loading to meet criteria.

DATA TYPES 20 - HEADWATER DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES									
Headwater Name	Element No.	Headwater Flow, cms	Data Source	Temp, deg C, Cont. Mont.	Data Source	Salinity (Insitu)	Chlorides (Lab Data)	Conductivity (Insitu)	Data Source
Petit Caillou Headwater	1	0.78551	Critical Flow Projection	23.4	90 th Percentile Temperature for Ambient Site 939	0.12	11.5	252.4	PC1

DATA TYPES 21 - HEADWATER DATA FOR DO, UCBOD1, UCBOD2, AND NBOD						
Headwater Name	Dissolved Oxygen, mg/L, Cont. Mont.	Data Source	UCBOD1, mg/l	UCBOD2, mg/l	NBOD, mg/l	Data Source
Petit Caillou Headwater	7.66	90% DO Sat for Ambient Site 939	1.14	1.27	0.72	75% Reduction in total loading to meet criteria.

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

DATA TYPES 22 - HEADWATER DATA FOR CHLOROPHYL A		
Headwater Name	Chlorophyll a, ug/L	Date Source
Petit Caillou Headwater	11.3	PC 1 Lab Data

DATA TYPES 24 - WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES									
Wasteload / Withdrawal Name	EL #	Flow, cms	Data Source	Temp, deg C	Data Source	Salinity	Chlorides	Cond	Data Source
St. Louis Canal	53	0.028	Critical winter flow projection as per LTP.	23.4	90 th Percentile Temperature for Ambient Site 939	0.27	19.3	589.7	PC 3 Insitu

DATA TYPES 25 - WASTELOAD DATA FOR DO, BOD, AND NITROGEN							
Wasteload / Withdrawal Name	EL #	DO, mg/l	Data Source	UCBOD1, mg/l	UNBOD, mg/l	UCBOD2, mg/l	Data Source
St. Louis Canal	53	5	DO Standard for Subsegment 120503	1.8	0.8	1.17	75% Reduction in total loading to meet criteria.

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

DATA TYPES 27 - LOWER BOUNDARY CONDITIONS			
Survey Site Name:			
Parameter	Value	Units	Data Source
TEMPERATURE	23.4		90 th Percentile Temperature for Ambient Site 939
SALINITY	0.13		Site 6 Insitu
CHLORIDES	17.9		Site 6 Water Quality Lab
CONDUCTIVITY	278.3		Site 6 Insitu
DISSOLVED OXYGEN	5		DO Standard for Subsegment 120503
BIOCHEMICAL OXYGEN DEMAND 1	4.63		Site 6 Water Quality Lab
BIOCHEMICAL OXYGEN DEMAND 2	3.59		Site 6 Water Quality Lab
NBOD	2.27		Site 6 Water Quality Lab
CHLOROPHYLL A	20		Site 6 Water Quality Lab

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix B5 – Winter Loading

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Winter Projection, Non-Point Benthic Load Input and TMDL Calculations:

	Modeled stream or water body:							Petit Caillou (SUBSEGMENT 120503)						
--	-------------------------------	--	--	--	--	--	--	-----------------------------------	--	--	--	--	--	--

Shaded cells are input values for calculations.

Values to be used in the projection models.

Reach Number and Description	Calibration Model Values											Proj. Model Avg. Reach Width	Proj. Temp.	Percentage Reduction of man-made sources	SOD @ 20°C	
	Non-Point UCBOD1	Non-Point UCBOD2	Total Non-Point UCBOD	Total Nonpoint Organic-N	Total Nonpoint Ammonia-N	Total Non-Point UNBOD	SOD @ 20°C	Total Calb. Benthic Load (TCBL)	Reach Length	Back-ground Benthic Load	Back-ground percentage reduction					
	gm O ₂ / [(m ²)(day)]	Kilo-meters	gm O ₂ / [(m ²)(day)]	%	gm O ₂ / [(m ²)(day)]	Meters	(deg Celcius)	%	gm O ₂ / [(m ²)(day)]							
	A1 (note 1)	A2 (note 1)	A3, (note 1)	B1 (note 1)	B2 (note 1)	B3, (note 1)	C, (note 1)	D, (note 1)	E, (note 1)	F1	F2	F = F1 x (1-F2)	G	H	I	O = (L)(C / D)
REACH 1: Headwater - Site 2	5.263	0.822	6.085	0.000	0.000	0.773	3.10	9.958	2.10	0.00	0%	0.00	28.96	23.40	75.0%	0.97
REACH 2: Site 2 - Site 3A	0.000	0.000	0.000	0.000	0.000	0.000	3.40	3.400	3.00	0.00	0%	0.00	29.57	23.40	75.0%	1.06
REACH 3: Site 3A - Site 4	0.000	6.740	6.740	0.000	0.000	0.000	1.10	7.840	0.30	0.00	0%	0.00	19.78	23.40	75.0%	0.34
REACH 4: Site 4 - Site 5	3.281	0.304	3.585	0.000	0.000	0.851	2.80	7.235	2.90	0.00	0%	0.00	28.38	23.40	75.0%	0.88
Sub-Total																

Notes:

Note 1, Data was calculated in and brought from the Calibration worksheet dataset.

Note 2, $J = [(1 - I) \times (D - F1)]$

Note 3, $L = [K - F] / (1 - MOS) + F$

Note 4, $R = E \times G \times O \times 1.065^{(H-20)}$

Note 5, $X = U \times 1.065^{(H-20)}$

Note 6, $AE = E \times G \times AB \times 1.065^{(H-20)}$

EXPLICIT MARGINS:

MARGIN OF SAFETY (MOS) (%) = [MOG + MOU] =	20%
--	------------

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Winter Projection, Non-Point Benthic Load Input and TMDL Calculations:

Shaded cells are input values for calculations.

Values to be used in the projection models.

Reach Number and Description	SOD @ 20°C	Projected Model Loads						Margin of Safety Loads						
		Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point UNBOD INPUTS	SOD load @ Proj. temp.	Total Projection Benthic Load (LA+MOS)	MOS Total Benthic Load @ 20°C	MOS SOD @ 20°C	Non-Point UCBOD1 MOS Loads	Non-Point UCBOD2 MOS Loads	Non-Point UNBOD MOS Loads	Adjusted SOD MOS @ Proj. temp	Adjusted Total MOS @ Proj. temp
	gm O ₂ / [(m ²)(day)]	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	
	O = (L)(C / D)	P1 = (M)(G)(E)(A1/A3)	P2 = (M)(G)(E)(A2/A3)	P3 = (E)(G)(M)	Q3 = (E)(G)(N)	R, (note 4)	S = P1 + P2 + Q3 + R	T = (L-K)(E)(G)	U = (T)(C/D)	V1 = T (A1/D)	V2 = T (A2/D)	W3 = (T)(B3/D)	X, (note 5)	V1+V2+W3+S
REACH 1: Headwater - Site 2	0.97	100.00	15.63	115.63	14.69	72.97	203.28	37.84	11.78	20.00	3.13	2.94	14.59	40.66
REACH 2: Site 2 - Site 3A	1.06	0.00	0.00	0.00	0.00	116.76	116.76	18.85	18.85	0.00	0.00	0.00	23.35	23.35
REACH 3: Site 3A - Site 4	0.34	0.00	12.50	12.50	0.00	2.53	15.03	2.91	0.41	0.00	2.50	0.00	0.51	3.01
REACH 4: Site 4 - Site 5	0.88	84.38	7.81	92.19	21.88	89.20	203.26	37.21	14.40	16.88	1.56	4.38	17.84	40.65
Sub-Total		184.38	35.94	220	37	281.46	538	97		37	7	7	56	108

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Reach Number and Description	Man-made Model equivalents								Man-made Model loads							
	Manmade portion of TCBL	Non-Point UCBOD1	Non-Point UCBOD2	Non-Point UCBOD	Nonpoint Organic-N	Nonpoint Ammonia-N	Non-Point UNBOD	SOD @ 20°C	Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Total Non-Point UCBOD INPUTS	Non-Point Organic-N INPUTS	Non-Point Ammonia-N INPUTS	Non-Point UNBOD INPUTS	SOD load @ Proj. temp.	
	gm O ₂ / [(m ²)(day)]	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)							
	Y = L - F	Z1 = (Y)(A1 / D)	Z2 = (Y)(A2 / D)	Z3=(Y) (A3/D)	AA1 = (Y)(B1 / D)	AA2 = (Y)(B2 / D)	AA3 = (Y) x (B3/D)	AB = (Y) x (C/D)	AC1 = (Z1)(G)(E)	AC2 = (Z2)(G)(E)	AC3 = (Z3)(G)(E)	AD1 = (AA1)(G)(E)	AD2 = (AA2)(G)(E)	AD3 = (AA3)(G)(E)	AE, (note 6)	
REACH 1: Headwater - Site 2	3.11	1.64	0.26	1.90	0.00	0.00	0.24	0.97	100.00	15.63	115.63	0.00	0.00	14.69	72.97	
REACH 2: Site 2 - Site 3A	1.06	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	116.76	
REACH 3: Site 3A - Site 4	2.45	0.00	2.11	2.11	0.00	0.00	0.00	0.34	0.00	12.50	12.50	0.00	0.00	0.00	2.53	
REACH 4: Site 4 - Site 5	2.26	1.03	0.09	1.12	0.00	0.00	0.27	0.88	84.38	7.81	92.19	0.00	0.00	21.88	89.20	
Sub-Total									184	36	220	0	0	37	281	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Reach Number and Description	SOD load @ Proj. temp.	Man-made Total Projection Benthic Load	Background Model loads							
			Non-Point UCBOD1 INPUTS	Non-Point UCBOD2 INPUTS	Non-Point UCBOD INPUTS	Non-Point Organic-N INPUTS	Non-Point Ammonia-N INPUTS	Non-Point UNBOD INPUTS	SOD load @ Proj. temp.	Background Total Projection Benthic Load
	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)	(kg/day)
	AE, (note 6)	AC3 + AD3 + AE	AF1 = P1 - AC1	AF2 = P2 - AC2	AF3 = P3 - AC3	AG1 = (Q1 x 4.3) - AD1	AG2 = (Q2 x 4.3) - AD2	AG3 = Q3 - AD3	AH = R - AE	AF3 + AG3 + AH
REACH 1: Headwater - Site 2	72.97	203.28	0.00	0.00	0.00	#DIV/0!	#DIV/0!	0.00	0.00	0.00
REACH 2: Site 2 - Site 3A	116.76	116.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REACH 3: Site 3A - Site 4	2.53	15.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REACH 4: Site 4 - Site 5	89.20	203.26	0.00	0.00	0.00	#DIV/0!	#DIV/0!	0.00	0.00	0.00
Sub-Total	281	538	0	0	0	#DIV/0!	#DIV/0!	0	0	0

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads:

Petit Caillou (SUBSEGMENT 120503)

FROM CALIBRATION									
Headwater / Tributary Description and Reach #	Seasonal Critical flow (cms)	UCBOD1 (mg/l)	UCBOD2 (mg/l)	Total UCBOD (mg/l)	Total UNBOD (mg/l)	UCBOD1 (kg/day)	UCBOD2 (kg/day)	UNBOD (kg/day)	Percent reduction of Man-Made loads
	A	B1	B2	B3	C3	D1=(86.4)(A)(B1)	D2=(86.4)(A)(B2)	E3 = (86.4)(A)(C3)	K
Petite Caillou Headwater	0.786	3.64	4.07	7.71	2.30	247.04	276.22	156.10	75%
St. Louis Canal	0.028	5.76	3.75	9.51	2.55	13.93	9.07	6.17	75%
SUB-TOTAL TMDL LOADING								162	

EXPLICIT MARGINS:

MARGIN OF SAFETY (MOS) (%) =

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Winter TMDL calculations and Projection model calculations for Headwater / Tributary loads:

Petite Caillou (Subsegment 120503)

Headwater / Tributary Load Determinations								PROJECTION VALUES			
Headwater / Tributary Description and Reach #	UCBOD1 load adjusted for % Reduction (kg/day)	UCBOD2 load adjusted for % Reduction (kg/day)	Total UCBOD load adjusted for % Reduction (kg/day)	UNBOD load adjusted for % Reduction (kg/day)	Reduced UCBOD1 load adjusted for MOS (kg/day)	Reduced UCBOD2 load adjusted for MOS (kg/day)	Reduced UNBOD load adjusted for MOS (kg/day)	Projection UCBOD1 input conc. (mg/l)	Projection UCBOD2 input conc. (mg/l)	Projection UC BOD input conc. (mg/l)	Projection UNBOD input conc. (mg/l)
	$L1 = (D1 - I1)(1-K) + I1$	$L2 = (D2 - I2)(1-K) + I2$	$L3 = (D3 - I3)(1-K) + I3$	$M3 = (E3 - J3)(1-K) + J3$	$N1 = (L1-I1)/(1-MOS) + I1$	$N2 = (L2-I2)/(1-MOS) + I2$	$O3 = (M3 - J3)/(1-MOS) + J3$	$N1/[(A)(86.4)]$	$N2/[(A)(86.4)]$	$N3/[(A)(86.4)]$	$(O3)/[(A)(86.4)]$
Petite Caillou Headwater	61.76	69.06	130.82	39.02	77.20	86.32	48.78	1.14	1.27	2.41	0.72
St. Louis Canal	3.48	2.27	5.75	1.54	4.35	2.84	1.93	1.80	1.17	2.97	0.80
SUB-TOTAL TMDL LOADING	65	71	137	41			51				

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Headwater / Tributary Load Determinations

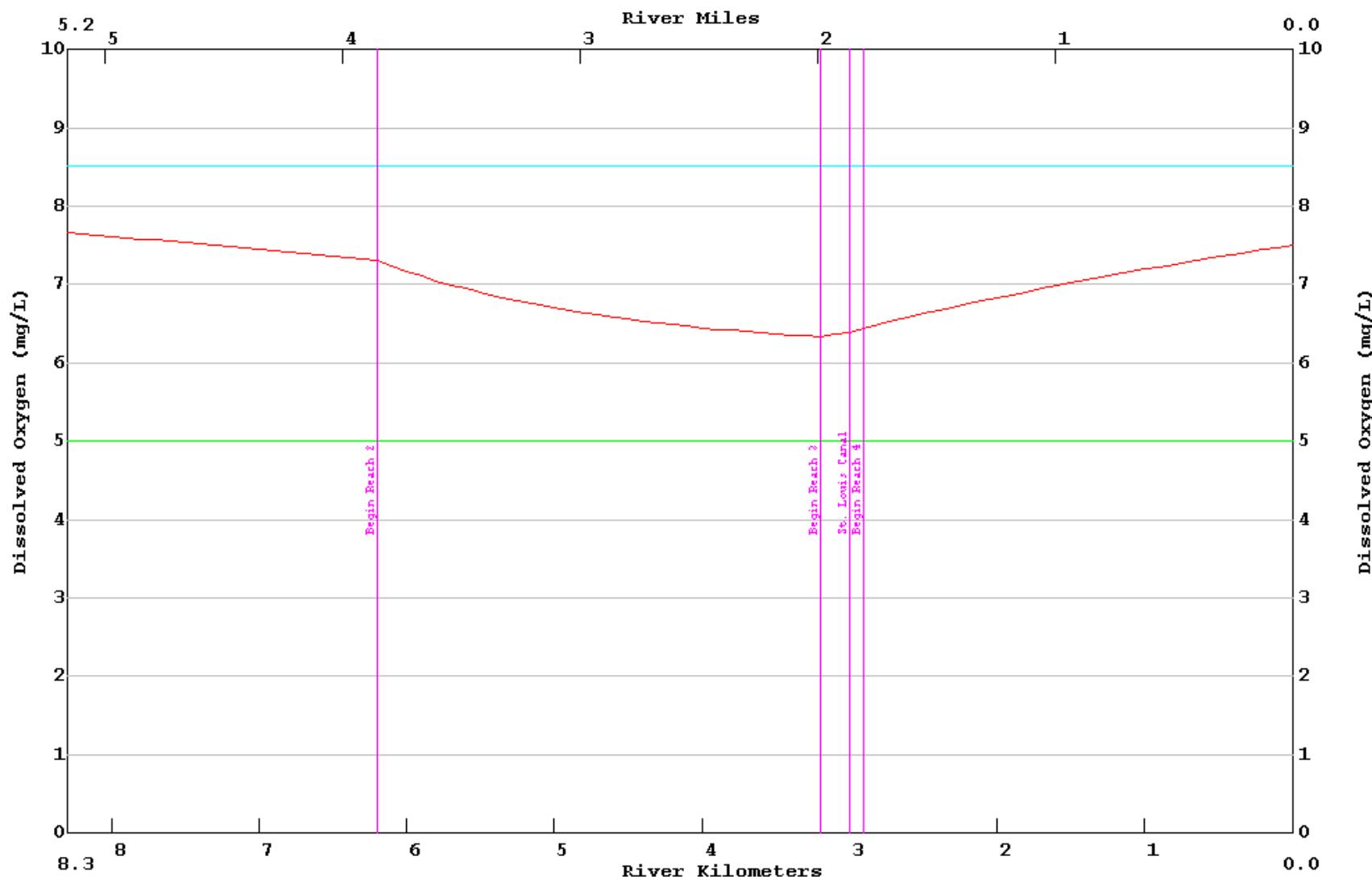
Headwater / Tributary Description and Reach #	Total MOS (kg/day)	Total CBOD1 LA (kg/day)	Total CBOD2 LA (kg/day)	Total NBOD LA (kg/day)	Total LA (kg/day)
	(N1+N2+O3) - (L1+L2+M3)	L1	L2	M3	L1 + L2 + M3
Petite Caillou Headwater	42.46	61.76	69.06	39.02	169.84
St. Louis Canal	1.82	3.48	2.27	1.54	7.29
SUB-TOTAL TMDL LOADING	44				177

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix B6 – Winter Output and Graphs

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

LA-QUAL Version 6.10 Run at 15:43 on 01/05/2005 File D:\Petit Caillou\120503\Input Files\pcaiwin75.txt
PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION min= 6.34 max= 7.66
:MAINSTEM



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

BAYOU PETIT CAILLOU WINTER PROJECTION INPUT DATA SET

CNTROL01 PETIT CAILLOU WATERSHED MODEL
CNTROL02 PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION
CNTROL04 YES METRIC UNITS
ENDATA01
MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND
MODOPT08 YES NBOD OXYGEN DEMAND
MODOPT10 NO PHOSPHORUS
MODOPT11 NO CHLOROPHYLL A
MODOPT12 NO MACROPHYTES
MODOPT13 NO COLIFORM
ENDATA02
PROGRAM KL MINIMUM = 0.7
PROGRAM INHIBITION CONTROL VALUE = 3.
PROGRAM K2 MAXIMUM = 25.0
PROGRAM HYDRAULIC CALCULATION METHOD = 2.
PROGRAM SETTLING RATE UNITS = 2.
PROGRAM OCEAN EXCHANGE RATIO = 0.0
ENDATA03
!Temperature Correction Constants
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
ENDATA04
ENDATA05
ENDATA06
ENDATA07
!Reach Identification Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
! R# ID SITE NAME RKM RKM LENGTH
REACH ID 1 PC HEADWATER - SITE 2 8.3 6.2 0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

REACH ID	2	PC SITE 2 - SITE 3A	6.2	3.2	0.1
REACH ID	3	PC SITE 3A - SITE 4	3.2	2.9	0.1
REACH ID	4	PC SITE 4 - SITE 5	2.9	0.0	0.1

ENDATA08

!Advection Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

		a	b	c	d	e	f
		WIDTH	WIDTH	WIDTH	DEPTH	DEPTH	DEPTH
	R#	COEFF	EXP	CONST	COEFF	EXP	CONST SLOPE MANNING
HYDR-1	1	0.00	0.00	28.956	0.00	0.00	0.978
HYDR-1	2	0.00	0.00	31.699	0.00	0.00	0.884
HYDR-1	3	0.00	0.00	19.782	0.00	0.00	1.039
HYDR-1	4	0.00	0.00	28.377	0.00	0.00	1.457

ENDATA09

!Dispersive Hydraulic Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****

		TIDAL					
	R#	RANGE	a	b	c	d	
HYDR-2	1	0.0	0.244	0.0	0.0	0.0	
HYDR-2	2	0.0	0.244	0.0	0.0	0.0	
HYDR-3	3	0.0	0.244	0.0	0.0	0.0	
HYDR-4	4	0.0	1.167	0.0	0.0	0.0	

ENDATA10

!Initial Conditions

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! *** -----*****-----*****-----*****-----*****-----*****

	R#	TEMP	SALINITY	DO	NH3 N	NIT	NIT	PHOS	CHL A	MACROPHYTES
INITIAL	1	23.400	0.12	5.00					11.30	
INITIAL	2	23.400	0.09	5.00					8.40	
INITIAL	3	23.400	0.10	5.00					7.50	
INITIAL	4	23.400	0.10	5.00					15.40	

ENDATA11

!Reaeration, Sediment Oxygen Demand and BOD Coefficients

!-----1-----2-----3-----4-----5-----6-----7-----8-----9

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
!2345678901234567890123456789012345678901234567890123456789012345678901234567890
!      *** -----*****----- *****-----*****-----*****-----*****-----*****
!
!          R#    REA   KL MIN           SOD   DECAY  SETT           BOD 1   BOD 1           BOD 2   BOD 2
!
COEF-1     1    11.00  0.70 0.0    0.0    0.97  0.2147 0.20    0.0    0.0305  0.1
COEF-1     2    11.00  0.70 0.0    0.0    1.06  0.1431 0.20    0.0    0.0305  0.1
COEF-1     3    11.00  0.70 0.0    0.0    0.34  0.1402 0.20    0.0    0.0196  0.1
COEF-1     4    11.00  0.70 0.0    0.0    0.88  0.1373 0.20    0.0    0.0195  0.1
ENDATA12
!Nitrogen and Phosphorus Coefficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!          R#    NBOD   NBOD           NBOD   NBOD
!
COEF-2     1    0.1247  0.20
COEF-2     2    0.1184  0.20
COEF-2     3    0.1047  0.20
COEF-2     4    0.1253  0.20
ENDATA13
ENDATA14
!Coliform and Nonconservative Cofficients
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
ENDATA15
!Incremental Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
!          R#    OUTFLOW   INFLOW   TEMP    SALINITY  CHLORIDE  COND
!
INCR-1     1      0.0     0.0000  00.000    0.0      0.00      0.0
INCR-1     2      0.0     0.24489  23.400    0.0      0.00      0.0
INCR-1     3      0.0     0.0000  00.000    0.0      0.00      0.0
INCR-1     4      0.0     0.0000  00.000    0.0      0.00      0.0
ENDATA16
!Incremental Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
!
*** -----*****-----*****-----*****-----*****
!
!      R#      DO      BOD 1      NBOD      NH3 N      NIT NIT      BOD 2
INCR-2      1      0.00      0.00      0.00
INCR-2      2      2.00      0.00      0.00
INCR-2      3      0.00      0.00      0.00
INCR-2      4      0.00      0.00      0.00
ENDATA17

!Incremental Data for Phosphorus, Chlorophyll, Coliform and Nonconservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****
!
!      R#      PHOSPH      CHL A      COLIFORM      NONCONSERVATIVE
INCR-3      1      0.000
INCR-3      2      0.000
INCR-3      3      0.000
INCR-3      4      0.000
ENDATA18

!Nonpoint Source Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****-----*****
!
!      R#      BOD 1      NBOD      COLIFORM      NONCONS      DO      BOD 2
NONPOINT     1      100.0      14.69      0.0      0.0000      0.0      15.63
NONPOINT     2      0.0      0.0      0.0      0.0000      0.0      0.00
NONPOINT     3      0.0      0.0      0.0      0.0000      0.0      12.50
NONPOINT     4      84.38      21.88      0.0      0.0000      0.0      7.81
ENDATA19

!Headwater Data for Flow, Temperature, Salinity, and Conservatives
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** ----- *** -----*****-----*****-----*****
!
!      E#      NAME          FLOW      TEMP      SALIN      CHLORIDE      COND
HDWTR-1     1      HEADWATER      0.      0.78551      23.400      0.12      11.5      252.4
ENDATA20

!Headwater Data for DO, BOD, and Nitrogen
!-----1-----2-----3-----4-----5-----6-----7-----8
!234567890123456789012345678901234567890123456789012345678901234567890
!
*** -----*****-----*****-----*****-----*****
!
!      E#      DO      BOD 1      NBOD      NH3 N      NIT NIT      BOD 2
```

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

HDWTR-2 1 7.66 1.14 0.72 0.00 0.00 1.27

ENDATA21

!Headwater Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!234567890123456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

HDWTR-3 1 11.3

ENDATA22

ENDATA23

!Wasteload Data for Flow, Temperature, Salinity, and Conservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*****-----*

! E# NAME FLOW TEMP SALINITY CHLORIDE COND

WSTLD-1 53 ST. LOUIS CANAL 0.0280 23.40 0.27 19.3 589.7

ENDATA24

!Wasteload Data for DO, BOD, and Nitrogen

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*****-----*

! E# DO BOD 1 NBOD NH3 N NIT NIT BOD 2

WSTLD-2 53 5.00 1.80 0.80 0.00 0.00 1.17

ENDATA25

!Wasteload Data for Phosphorus, Chlorophyll, Coliform, and Nonconservatives

!-----1-----2-----3-----4-----5-----6-----7-----8

!23456789012345678901234567890123456789012345678901234567890

! **** * -----*****-----*****-----*****-----*

! E# PHOSPHOR CHL A COLIFORM NONCONSERVATIVE

WSTLD-3 53

ENDATA26

LOWER BC TEMPERATURE = 23.40

LOWER BC SALINITY = 0.13

LOWER BC CONSERVATIVE MATERIAL I = 17.90

LOWER BC CONSERVATIVE MATERIAL II = 278.30

LOWER BC DISSOLVED OXYGEN = 5.00

LOWER BC BOD1 BIOCHEMICAL OXYGEN DEMAND = 4.63

LOWER BC BOD2 BIOCHEMICAL OXYGEN DEMAND = 3.59

LOWER BC CHLOROPHYLL A = 20.00

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

```
LOWER BC NBOD = 2.27
ENDATA27
!Dam Data
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
ENDATA28
ENDATA29
NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 4 INCREMENT = 0.1
!-----1-----2-----3-----4-----5-----6-----7-----8
!23456789012345678901234567890123456789012345678901234567890
!
PLOT RCH 1 2 3 4
ENDATA30
OVERLAY 1 pcaiovlpjproj.txt :MAINSTEM
ENDATA31
```

BAYOU PETIT CAILLOU WINTER PROJECTION OUTPUT DATA SET

LA-QUAL Version 6.10
Louisiana Department of Environmental Quality

Input file is D:\Petit Caillou\120503\Input Files\pcaiwin75.txt
Output produced at 15:43 on 01/05/2005

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE CONTROL TITLES

TITLE01 PETIT CAILLOU WATERSHED MODEL
TITLE02 PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION
CNTROL04 YES METRIC UNITS
ENDATA01

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE MODEL OPTION

MODOPT01 NO TEMPERATURE
MODOPT02 NO SALINITY
MODOPT03 YES CONSERVATIVE MATERIAL I = CHLORIDES IN MG/L
MODOPT04 YES CONSERVATIVE MATERIAL II = CONDUCTIVITY IN MG/L
MODOPT05 YES DISSOLVED OXYGEN
MODOPT06 YES BOD1 BIOCHEMICAL OXYGEN DEMAND
MODOPT07 YES BOD2 BIOCHEMICAL OXYGEN DEMAND

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```
MODOPT08  YES  NBOD OXYGEN DEMAND
MODOPT10  NO   PHOSPHORUS
MODOPT11  NO   CHLOROPHYLL A
MODOPT12  NO   MACROPHYTES
MODOPT13  NO   COLIFORM
ENDATA02
```

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM	KL MINIMUM	= 0.70000 meters/day
PROGRAM	INHIBITION CONTROL VALUE	= 3.00000 (inhibit all rates but SOD)
PROGRAM	K2 MAXIMUM	= 25.00000 per day
PROGRAM	HYDRAULIC CALCULATION METHOD	= 2.00000 (widths and depths)
PROGRAM	SETTLING RATE UNITS	= 2.00000 (values entered as per day)
PROGRAM	OCEAN EXCHANGE RATIO	= 0.00000

```
ENDATA03
```

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE	RATE CODE	THETA VALUE
-----------	-----------	-------------

```
ENDATA04
```

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

```
ENDATA05
```

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

```
ENDATA06
```

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
-----------	-------------------------	-------

```
ENDATA07
```

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN	END	ELEM	REACH	ELEMS	BEGIN	END	
				REACH	REACH	LENGTH	LENGTH	PER RCH	ELEM	NUM	NUM
				km	km	km	km				
REACH ID	1	PC	HEADWATER - SITE 2	8.30	TO	6.20	0.1000	2.10	21	1	21
REACH ID	2	PC	SITE 2 - SITE 3A	6.20	TO	3.20	0.1000	3.00	30	22	51
REACH ID	3	PC	SITE 3A - SITE 4	3.20	TO	2.90	0.1000	0.30	3	52	54
REACH ID	4	PC	SITE 4 - SITE 5	2.90	TO	0.00	0.1000	2.90	29	55	83

```
ENDATA08
```

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	WIDTH	WIDTH	WIDTH	DEPTH	DEPTH	DEPTH	SLOPE	MANNINGS
-----------	-------	----	-------	-------	-------	-------	-------	-------	-------	----------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

		"A"	"B"	"C"	"D"	"E"	"F"	"N"		
HYDR-1	1	PC	0.000	0.000	28.956	0.000	0.000	0.978	0.00000	0.000
HYDR-1	2	PC	0.000	0.000	31.699	0.000	0.000	0.884	0.00000	0.000
HYDR-1	3	PC	0.000	0.000	19.782	0.000	0.000	1.039	0.00000	0.000
HYDR-1	4	PC	0.000	0.000	28.377	0.000	0.000	1.457	0.00000	0.000
ENDATA09										

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR	1	PC	0.00	0.244	0.000	0.000	0.000	0.000
HYDR	2	PC	0.00	0.244	0.000	0.000	0.000	0.000
HYDR	3	PC	0.00	0.244	0.000	0.000	0.000	0.000
HYDR	4	PC	0.00	1.167	0.000	0.000	0.000	0.000
ENDATA10								

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD	TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	PC	23.40	0.12	5.00	0.00	0.00	0.00	11.30	0.00	
INITIAL	2	PC	23.40	0.09	5.00	0.00	0.00	0.00	8.40	0.00	
INITIAL	3	PC	23.40	0.10	5.00	0.00	0.00	0.00	7.50	0.00	
INITIAL	4	PC	23.40	0.10	5.00	0.00	0.00	0.00	15.40	0.00	
ENDATA11											

\$\$\$ DATA TYPE 12 (REAERATION, SEDIMENT OXYGEN DEMAND, BOD COEFFICIENTS) \$\$\$

CARD	RCH	RCH	K2	K2	K2	BKGRND	BOD	BOD	ANAER	BOD2	BOD2	BOD2	ANAER
TYPE	NUM	ID	OPT	"A"	"B"	SOD	DECAY	SETT	CONV	BOD2	DECAY	SETT	CONV
						g/m ² /d	per day	m/d	TO SOD	DECAY	per day	m/d	DECAY
COEF-1	1	PC	11 TEXAS	0.700	0.000	0.000	0.970	0.215	0.200	0.000	0.000	0.100	0.000
COEF-1	2	PC	11 TEXAS	0.700	0.000	0.000	1.060	0.143	0.200	0.000	0.000	0.100	0.000
COEF-1	3	PC	11 TEXAS	0.700	0.000	0.000	0.340	0.140	0.200	0.000	0.000	0.100	0.000
COEF-1	4	PC	11 TEXAS	0.700	0.000	0.000	0.880	0.137	0.200	0.000	0.000	0.100	0.000
ENDATA12													

\$\$\$ DATA TYPE 13 (NITROGEN AND PHOSPHORUS COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	NBOD	NBOD	ORGN	CONV	NH3	NH3	PHOS	DENIT
				DECA	SETT	TO NH3	SRCE	DECA	SRCE	SRCE	RATE
COEF-2	1	PC	0.125	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	2	PC	0.118	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	3	PC	0.105	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000
COEF-2	4	PC	0.125	0.200	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ENDATA13											

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD	TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP
------	------	-------	----	--------------	--------------	------------	-----------------	------------	------------	------------	------------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

ENDATA14

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
-----------	-------	----	---------------------	--------------	-------------	--------------------

ENDATA15

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-I	CM-II	IN/DIST	OUT/DIST
INCR-1	1	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	2	PC	0.00000	0.24489	23.40	0.00	0.00	0.00	0.08163	0.00000
INCR-1	3	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000
INCR-1	4	PC	0.00000	0.00000	0.00	0.00	0.00	0.00	0.00000	0.00000

ENDATA16

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	REACH	ID	DO	BOD	NBOD	BOD#2		
INCR-2	1	PC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	2	PC	2.00	0.00	0.00	0.00	0.00	0.00
INCR-2	3	PC	0.00	0.00	0.00	0.00	0.00	0.00
INCR-2	4	PC	0.00	0.00	0.00	0.00	0.00	0.00

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
INCR-3	1	PC	0.00	0.00	0.00	0.00
INCR-3	2	PC	0.00	0.00	0.00	0.00
INCR-3	3	PC	0.00	0.00	0.00	0.00
INCR-3	4	PC	0.00	0.00	0.00	0.00

ENDATA18

\$\$\$ DATA TYPE 19 (NONPOINT SOURCE DATA) \$\$\$

CARD TYPE	REACH	ID	BOD#1	NBOD	COLI	NCM	DO	BOD#2
NONPOINT	1	PC	100.00	14.69	0.00	0.00	0.00	15.63
NONPOINT	2	PC	0.00	0.00	0.00	0.00	0.00	0.00
NONPOINT	3	PC	0.00	0.00	0.00	0.00	0.00	12.50
NONPOINT	4	PC	84.38	21.88	0.00	0.00	0.00	7.81

ENDATA19

\$\$\$ DATA TYPE 20 (HEADWATER FOR FLOW, TEMPERATURE, SALINITY AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	UNIT	FLOW m ³ /s	FLOW cfs	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
HDWTR-1	1	HEADWATER	0	0.78551	27.737	23.40	0.12	11.500	252.000

ENDATA20

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

\$\$\$ DATA TYPE 21 (HEADWATER DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD#1 mg/L	NBOD mg/L	mg/L	mg/L	BOD#2 mg/L
HDWTR-2	1	HEADWATER	7.66	1.14	0.72	0.00	0.00	1.27
ENDATA21								

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
HDWTR-3	1	HEADWATER	0.00	11.30	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	RIVER ELEMENT	NAME KILOM
ENDATA23				

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	RKILO	NAME	FLOW m³/s	FLOW cfs	FLOW MGD	TEMP deg C	SALIN ppt	CM-I MG/L	CM-II MG/L
WSTLD-1	53	3.10	ST. LOUIS CANAL	0.02800	0.98870	0.639	23.40	0.27	19.300	589.700
ENDATA24										

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO mg/L	BOD mg/L	% BOD RMVL	NBOD mg/L	mg/L	% NITRIF	mg/L	BOD#2 mg/L
WSTLD-2	53	ST. LOUIS CANAL	5.00	1.80	0.00	0.80	0.00	0.00	0.00	1.17
ENDATA25										

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS mg/L	CHL A mg/L	COLI mg/L	NCM mg/L
WSTLD-3	53	ST. LOUIS CANAL	0.00	0.00	0.00	0.00
ENDATA26						

\$\$\$ DATA TYPE 27 (LOWER BOUNDARY CONDITIONS) \$\$\$

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 23.400 deg C
LOWER BC	SALINITY	= 0.130 ppt
LOWER BC	CONSERVATIVE MATERIAL I	= 17.900 MG/L
LOWER BC	CONSERVATIVE MATERIAL II	= 278.300 MG/L
LOWER BC	DISSOLVED OXYGEN	= 5.000 mg/L
LOWER BC	BOD1 BIOCHEMICAL OXYGEN DEMAND	= 4.630 mg/L

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

```

LOWER BC      BOD2 BIOCHEMICAL OXYGEN DEMAND    =      3.590    mg/L
LOWER BC      CHLOROPHYLL A                  =     20.000   µg/L
LOWER BC      NBOD                          =      2.270    mg/L
ENDATA27

```

\$\$\$ DATA TYPE 28 (DAM DATA) \$\$\$

CARD TYPE	ELEMENT	NAME	EQN	"A"	"B"	"H"
-----------	---------	------	-----	-----	-----	-----

ENDATA28

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
-----------	-----------	-------	-------	-------	-------	-------	-------	-------	-------

ENDATA29

\$\$\$ DATA TYPE 30 (PLOT CONTROL CARDS) \$\$\$

```

NUMBER OF PLOTS = 1
NUMBER OF REACHES IN PLOT 1 = 4
PLOT RCH 1 2 3 4
ENDATA30

```

\$\$\$ DATA TYPE 31 (OVERLAY PLOT DATA) \$\$\$

```

OVERLAY 1 pcaiovlpjroj.txt :MAINSTEM
ENDATA31

```

```

.....NO ERRORS DETECTED IN INPUT DATA
.....HYDRAULIC CALCULATIONS COMPLETED
.....TRIDIAGONAL MATRIX TERMS INITIALIZED
.....OXYGEN DEPENDENT RATES CONVERGENT IN 3 ITERATIONS
.....CONSTITUENT CALCULATIONS COMPLETED
.....GRAPHICS DATA FOR PLOT 1 WRITTEN TO UNIT 11

```

FINAL REPORT	HEADWATER	PETIT CAILLOU WATERSHED MODEL
REACH NO. 1	HEADWATER - SITE 2	PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
1	HDWTR	0.78551	23.40	0.12	11.50	252.00	7.66	1.14	1.27	1.14	1.27	0.72	0.00	0.00	0.00	11.30	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW EFF	PCT ADVCTV VELO	TRAVEL TIME	DEPTH	WIDTH	VOLUME	SURFACE AREA	X-SECT AREA	TIDAL PRISM	TIDAL VELO	DISPRSN	MEAN VELO
----------	------------	-------------	----------	-----------------	-------------	-------	-------	--------	--------------	-------------	-------------	------------	---------	-----------

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

	km	km	m ³ /s		m/s	days	m	m	m ³	m ²	m ²	m ³	m/s	m ² /s	m/s	
1	8.30	8.20	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
2	8.20	8.10	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
3	8.10	8.00	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
4	8.00	7.90	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
5	7.90	7.80	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
6	7.80	7.70	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
7	7.70	7.60	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
8	7.60	7.50	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
9	7.50	7.40	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
10	7.40	7.30	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
11	7.30	7.20	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
12	7.20	7.10	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
13	7.10	7.00	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
14	7.00	6.90	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
15	6.90	6.80	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
16	6.80	6.70	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
17	6.70	6.60	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
18	6.60	6.50	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
19	6.50	6.40	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
20	6.40	6.30	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
21	6.30	6.20	0.78551	0.0	0.02774	0.04	0.98	28.96	2831.90	2895.60	28.32	0.00	0.000	0.244	0.028	
TOT						0.88			59469.85		60807.61					
Avg						0.02774			0.98		28.96					
CUM						0.88										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER	BOD#1 RATE 1/day	BOD#1 DECAY 1/day	ABOD#1 SETT 1/day	BOD#2 DECAY 1/day	BOD#2 SETT 1/day	ABOD#2 DECAY 1/day	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/day	ORGN SETT 1/day	NH3 DECAY 1/day	NH3 SRCE *	DENIT RATE 1/day	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/day	NCM DECAY 1/day	NCM SETT 1/day
1	8.200	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.65	0.00	0.00	0.00	0.00	0.00
2	8.100	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00
3	8.000	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00
4	7.900	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00
5	7.800	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00
6	7.700	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	0.00
7	7.600	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00
8	7.500	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00
9	7.400	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00
10	7.300	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00
11	7.200	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00
12	7.100	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00
13	7.000	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.56	0.00	0.00	0.00	0.00	0.00
14	6.900	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.55	0.00	0.00	0.00	0.00	0.00
15	6.800	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.54	0.00	0.00	0.00	0.00	0.00
16	6.700	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.00
17	6.600	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00
18	6.500	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00	0.00
19	6.400	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00
20	6.300	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00
21	6.200	8.51	0.79	0.25	0.22	0.00	0.04	0.11	0.00	1.20	1.20	1.20	0.15	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

AVG 20 DEG C RATE	0.74	0.21	0.20	0.00	0.03	0.10	0.00	0.97	0.12	0.20	0.00	0.00	0.00	0.00	0.00	0.00
* g/m ² /d					** mg/L/day											

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
1	8.200	23.40	0.12	11.50	252.00	7.64	1.19	1.27	1.19	1.27	0.72	0.00	0.00	0.00	0.00	11.16	0.00	0.	0.00
2	8.100	23.40	0.12	11.50	252.00	7.63	1.24	1.28	1.24	1.28	0.72	0.00	0.00	0.00	0.00	11.02	0.00	0.	0.00
3	8.000	23.40	0.12	11.50	252.00	7.61	1.28	1.28	1.28	1.28	0.72	0.00	0.00	0.00	0.00	10.89	0.00	0.	0.00
4	7.900	23.40	0.11	11.50	252.00	7.60	1.33	1.28	1.33	1.28	0.72	0.00	0.00	0.00	0.00	10.75	0.00	0.	0.00
5	7.800	23.40	0.11	11.50	252.00	7.58	1.37	1.29	1.37	1.29	0.72	0.00	0.00	0.00	0.00	10.61	0.00	0.	0.00
6	7.700	23.40	0.11	11.50	252.00	7.57	1.41	1.29	1.41	1.29	0.72	0.00	0.00	0.00	0.00	10.47	0.00	0.	0.00
7	7.600	23.40	0.11	11.50	252.00	7.55	1.45	1.29	1.45	1.29	0.71	0.00	0.00	0.00	0.00	10.33	0.00	0.	0.00
8	7.500	23.40	0.11	11.50	252.00	7.53	1.49	1.30	1.49	1.30	0.71	0.00	0.00	0.00	0.00	10.20	0.00	0.	0.00
9	7.400	23.40	0.11	11.50	252.00	7.52	1.53	1.30	1.53	1.30	0.71	0.00	0.00	0.00	0.00	10.06	0.00	0.	0.00
10	7.300	23.40	0.11	11.50	252.00	7.50	1.57	1.30	1.57	1.30	0.71	0.00	0.00	0.00	0.00	9.92	0.00	0.	0.00
11	7.200	23.40	0.10	11.50	252.00	7.48	1.61	1.31	1.61	1.31	0.71	0.00	0.00	0.00	0.00	9.78	0.00	0.	0.00
12	7.100	23.40	0.10	11.50	252.00	7.47	1.65	1.31	1.65	1.31	0.71	0.00	0.00	0.00	0.00	9.64	0.00	0.	0.00
13	7.000	23.40	0.10	11.50	252.00	7.45	1.69	1.31	1.69	1.31	0.71	0.00	0.00	0.00	0.00	9.50	0.00	0.	0.00
14	6.900	23.40	0.10	11.50	252.00	7.43	1.72	1.31	1.72	1.31	0.71	0.00	0.00	0.00	0.00	9.37	0.00	0.	0.00
15	6.800	23.40	0.10	11.50	252.00	7.41	1.76	1.32	1.76	1.32	0.71	0.00	0.00	0.00	0.00	9.23	0.00	0.	0.00
16	6.700	23.40	0.10	11.50	252.00	7.40	1.80	1.32	1.80	1.32	0.71	0.00	0.00	0.00	0.00	9.09	0.00	0.	0.00
17	6.600	23.40	0.10	11.50	252.00	7.38	1.83	1.32	1.83	1.32	0.71	0.00	0.00	0.00	0.00	8.95	0.00	0.	0.00
18	6.500	23.40	0.09	11.50	252.00	7.36	1.86	1.33	1.86	1.33	0.71	0.00	0.00	0.00	0.00	8.81	0.00	0.	0.00
19	6.400	23.40	0.09	11.50	252.00	7.34	1.90	1.33	1.90	1.33	0.71	0.00	0.00	0.00	0.00	8.68	0.00	0.	0.00
20	6.300	23.40	0.09	11.50	251.98	7.32	1.93	1.33	1.93	1.33	0.71	0.00	0.00	0.00	0.00	8.54	0.00	0.	0.00
21	6.200	23.40	0.09	11.49	251.77	7.30	1.95	1.33	1.95	1.33	0.71	0.00	0.00	0.00	0.00	8.40	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 2 SITE 2 - SITE 3APETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW deg C	TEMP ppt	SALN	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
22	UPR RCH	0.78551	23.40	0.09	11.49	251.77	7.30	1.95	1.33	1.95	1.33	0.71	0.00	0.00	0.00	8.40	0.00	0.00
EACH	INCR	0.00816	23.40	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m ³ /s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m ³	SURFACE AREA m ²	X-SECT AREA m ²	TIDAL PRISM m ³	TIDAL VELO m/s	DISPRSN m ² /s	MEAN VELO m/s
22	6.20	6.10	0.79367	0.0	0.02832	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.028
23	6.10	6.00	0.80184	0.0	0.02861	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029
24	6.00	5.90	0.81000	0.0	0.02891	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029
25	5.90	5.80	0.81816	0.0	0.02920	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029
26	5.80	5.70	0.82632	0.0	0.02949	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.029

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

27	5.70	5.60	0.83449	0.0	0.02978	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.030
28	5.60	5.50	0.84265	0.0	0.03007	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.030
29	5.50	5.40	0.85081	0.0	0.03036	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.030
30	5.40	5.30	0.85898	0.0	0.03065	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.031
31	5.30	5.20	0.86714	0.0	0.03095	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.031
32	5.20	5.10	0.87530	0.0	0.03124	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.031
33	5.10	5.00	0.88347	0.0	0.03153	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
34	5.00	4.90	0.89163	0.0	0.03182	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
35	4.90	4.80	0.89979	0.0	0.03211	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
36	4.80	4.70	0.90795	0.0	0.03240	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.032
37	4.70	4.60	0.91612	0.0	0.03269	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.033
38	4.60	4.50	0.92428	0.0	0.03298	0.04	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.033
39	4.50	4.40	0.93244	0.0	0.03328	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.033
40	4.40	4.30	0.94061	0.0	0.03357	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
41	4.30	4.20	0.94877	0.0	0.03386	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
42	4.20	4.10	0.95693	0.0	0.03415	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
43	4.10	4.00	0.96510	0.0	0.03444	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.034
44	4.00	3.90	0.97326	0.0	0.03473	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.035
45	3.90	3.80	0.98142	0.0	0.03502	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.035
46	3.80	3.70	0.98958	0.0	0.03531	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.035
47	3.70	3.60	0.99775	0.0	0.03561	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
48	3.60	3.50	1.00591	0.0	0.03590	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
49	3.50	3.40	1.01407	0.0	0.03619	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
50	3.40	3.30	1.02224	0.0	0.03648	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.036
51	3.30	3.20	1.03040	0.0	0.03677	0.03	0.88	31.70	2802.19	3169.90	28.02	0.00	0.000	0.244	0.037
TOT						1.07			84065.77		95096.98				
Avg					0.03235		0.88	31.70			28.02				
CUM					1.95										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER RATE 1/day	BOD#1 DECAY 1/day	BOD#1 SETT 1/day	ABOD#1 DECAY 1/day	BOD#2 DECAY 1/day	BOD#2 SETT 1/day	ABOD#2 DECAY 1/day	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/day	ORGN SETT 1/day	NH3 DECAY 1/day	NH3 SRCE *	DENIT RATE 1/day	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/day	NCM DECAY 1/day	NCM SETT 1/day
22	6.100	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
23	6.000	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
24	5.900	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00
25	5.800	8.51	0.87	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
26	5.700	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
27	5.600	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
28	5.500	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
29	5.400	8.51	0.88	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
30	5.300	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00
31	5.200	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
32	5.100	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
33	5.000	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
34	4.900	8.51	0.89	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
35	4.800	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.00
36	4.700	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
37	4.600	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
38	4.500	8.51	0.90	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
39	4.400	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
40	4.300	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
41	4.200	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

42	4.100	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	
43	4.000	8.51	0.91	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	
44	3.900	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	
45	3.800	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	
46	3.700	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	
47	3.600	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	
48	3.500	8.51	0.92	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	
49	3.400	8.51	0.93	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	
50	3.300	8.51	0.93	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	
51	3.200	8.51	0.93	0.17	0.22	0.00	0.04	0.11	0.00	1.31	1.31	1.31	0.14	0.22	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	
Avg	20	DEG C	RATE	0.84	0.14	0.20	0.00	0.03	0.10	0.00	1.06			0.12	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m ³	COLI #/100mL	NCM
22	6.100	23.40	0.09	11.37	249.19	7.23	1.90	1.31	1.90	1.31	0.69	0.00	0.00	0.00	0.00	8.37	0.00	0.	0.00
23	6.000	23.40	0.09	11.26	246.66	7.17	1.86	1.29	1.86	1.29	0.67	0.00	0.00	0.00	0.00	8.34	0.00	0.	0.00
24	5.900	23.40	0.09	11.14	244.18	7.11	1.81	1.27	1.81	1.27	0.65	0.00	0.00	0.00	0.00	8.31	0.00	0.	0.00
25	5.800	23.40	0.09	11.03	241.74	7.05	1.76	1.25	1.76	1.25	0.64	0.00	0.00	0.00	0.00	8.28	0.00	0.	0.00
26	5.700	23.40	0.09	10.92	239.36	7.00	1.72	1.23	1.72	1.23	0.62	0.00	0.00	0.00	0.00	8.25	0.00	0.	0.00
27	5.600	23.40	0.09	10.82	237.02	6.95	1.68	1.21	1.68	1.21	0.61	0.00	0.00	0.00	0.00	8.22	0.00	0.	0.00
28	5.500	23.40	0.09	10.71	234.73	6.90	1.64	1.19	1.64	1.19	0.60	0.00	0.00	0.00	0.00	8.19	0.00	0.	0.00
29	5.400	23.40	0.09	10.61	232.48	6.85	1.60	1.18	1.60	1.18	0.58	0.00	0.00	0.00	0.00	8.16	0.00	0.	0.00
30	5.300	23.40	0.09	10.51	230.28	6.81	1.56	1.16	1.56	1.16	0.57	0.00	0.00	0.00	0.00	8.13	0.00	0.	0.00
31	5.200	23.40	0.09	10.41	228.11	6.77	1.53	1.14	1.53	1.14	0.56	0.00	0.00	0.00	0.00	8.10	0.00	0.	0.00
32	5.100	23.40	0.09	10.31	225.99	6.74	1.49	1.13	1.49	1.13	0.54	0.00	0.00	0.00	0.00	8.07	0.00	0.	0.00
33	5.000	23.40	0.09	10.22	223.90	6.70	1.46	1.11	1.46	1.11	0.53	0.00	0.00	0.00	0.00	8.04	0.00	0.	0.00
34	4.900	23.40	0.09	10.12	221.85	6.67	1.42	1.09	1.42	1.09	0.52	0.00	0.00	0.00	0.00	8.01	0.00	0.	0.00
35	4.800	23.40	0.09	10.03	219.84	6.64	1.39	1.08	1.39	1.08	0.51	0.00	0.00	0.00	0.00	7.98	0.00	0.	0.00
36	4.700	23.40	0.10	9.94	217.87	6.61	1.36	1.06	1.36	1.06	0.50	0.00	0.00	0.00	0.00	7.95	0.00	0.	0.00
37	4.600	23.40	0.10	9.85	215.93	6.58	1.33	1.05	1.33	1.05	0.49	0.00	0.00	0.00	0.00	7.92	0.00	0.	0.00
38	4.500	23.40	0.10	9.77	214.03	6.56	1.30	1.03	1.30	1.03	0.48	0.00	0.00	0.00	0.00	7.89	0.00	0.	0.00
39	4.400	23.40	0.10	9.68	212.16	6.53	1.27	1.02	1.27	1.02	0.47	0.00	0.00	0.00	0.00	7.86	0.00	0.	0.00
40	4.300	23.40	0.10	9.60	210.32	6.51	1.24	1.01	1.24	1.01	0.46	0.00	0.00	0.00	0.00	7.83	0.00	0.	0.00
41	4.200	23.40	0.10	9.52	208.51	6.49	1.22	0.99	1.22	0.99	0.45	0.00	0.00	0.00	0.00	7.80	0.00	0.	0.00
42	4.100	23.40	0.10	9.43	206.73	6.47	1.19	0.98	1.19	0.98	0.44	0.00	0.00	0.00	0.00	7.77	0.00	0.	0.00
43	4.000	23.40	0.10	9.35	204.99	6.45	1.17	0.97	1.17	0.97	0.43	0.00	0.00	0.00	0.00	7.74	0.00	0.	0.00
44	3.900	23.40	0.10	9.28	203.27	6.43	1.14	0.95	1.14	0.95	0.42	0.00	0.00	0.00	0.00	7.71	0.00	0.	0.00
45	3.800	23.40	0.10	9.20	201.58	6.41	1.12	0.94	1.12	0.94	0.41	0.00	0.00	0.00	0.00	7.68	0.00	0.	0.00
46	3.700	23.40	0.10	9.12	199.92	6.40	1.10	0.93	1.10	0.93	0.40	0.00	0.00	0.00	0.00	7.65	0.00	0.	0.00
47	3.600	23.40	0.10	9.05	198.29	6.38	1.07	0.92	1.07	0.92	0.40	0.00	0.00	0.00	0.00	7.62	0.00	0.	0.00
48	3.500	23.40	0.10	8.98	196.68	6.37	1.05	0.91	1.05	0.91	0.39	0.00	0.00	0.00	0.00	7.59	0.00	0.	0.00
49	3.400	23.40	0.10	8.90	195.10	6.36	1.03	0.89	1.03	0.89	0.38	0.00	0.00	0.00	0.00	7.56	0.00	0.	0.00
50	3.300	23.40	0.10	8.83	193.55	6.34	1.01	0.88	1.01	0.88	0.37	0.00	0.00	0.00	0.00	7.53	0.00	0.	0.00
51	3.200	23.40	0.10	8.77	192.14	6.34	0.99	0.88	0.99	0.88	0.37	0.00	0.00	0.00	0.00	7.50	0.00	0.	0.00

FINAL REPORT REACH NO. 3 HEADWATER SITE 3A - SITE 4

PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
52	UPR RCH	1.03040	23.40	0.10	8.77	192.14	6.34	0.99	0.88	0.99	0.88	0.37	0.00	0.00	0.00	7.50	0.00	0.00
53	WSTLD	0.02800	23.40	0.27	19.30	589.70	5.00	1.80	1.17	1.80	1.17	0.80	0.00	0.00	0.00	0.00	0.00	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST km	ENDING DIST km	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPRSN m²/s	MEAN VELO m/s	
52	3.20	3.10	1.03040	0.0	0.05013	0.02	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.050	
53	3.10	3.00	1.05840	2.6	0.05149	0.02	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.051	
54	3.00	2.90	1.05840	2.6	0.05149	0.02	1.04	19.78	2055.35	1978.20	20.55	0.00	0.000	0.244	0.051	
TOT						0.07			6166.05	5934.60						
AVG					0.05103		1.04	19.78			20.55					
CUM						2.02										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST mg/L	SAT D.O. 1/d	REAER RATE 1/da	BOD#1 DECAY 1/da	BOD#1 SETT 1/da	ABOD#1 DECAY 1/da	BOD#2 DECAY 1/da	BOD#2 SETT 1/da	ABOD#2 DECAY 1/da	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/da	ORGN SETT 1/da	NH3 DECAY 1/da	NH3 SRCE *	DENIT RATE 1/da	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/da	NCM DECAY 1/da	NCM SETT 1/da		
52	3.100	8.51	0.88	0.16	0.22	0.00	0.02	0.11	0.00	0.42	0.42	0.42	0.13	0.22	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	
53	3.000	8.51	0.88	0.16	0.22	0.00	0.02	0.11	0.00	0.42	0.42	0.42	0.13	0.22	0.00	0.00	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	
54	2.900	8.51	0.88	0.16	0.22	0.00	0.02	0.11	0.00	0.42	0.42	0.42	0.13	0.22	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00	0.00	
AVG	20	DEG C RATE	0.82	0.14	0.20	0.00	0.02	0.10	0.00	0.34				0.10	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* g/m²/d

** mg/L/day

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST DEG C	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
52	3.100	23.40	0.10	8.78	192.60	6.38	0.98	0.92	0.98	0.92	0.37	0.00	0.00	0.00	0.00	10.13	0.00	0.	0.00
53	3.000	23.40	0.10	9.05	202.63	6.39	1.00	0.97	1.00	0.97	0.37	0.00	0.00	0.00	0.00	12.77	0.00	0.	0.00
54	2.900	23.40	0.10	9.05	202.63	6.44	0.99	1.01	0.99	1.01	0.37	0.00	0.00	0.00	0.00	15.40	0.00	0.	0.00

FINAL REPORT HEADWATER
REACH NO. 4 SITE 4 - SITE 5PETIT CAILLOU WATERSHED MODEL
PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW	TEMP deg C	SALN ppt	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	PHOS mg/L	CHL A µg/L	COLI #/100mL	NCM
-------------	------	------	---------------	-------------	--------------	---------------	------------	---------------	---------------	----------------	----------------	--------------	-------------	---------------	--------------	---------------	-----------------	-----

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

55	UPR RCH	1.05840	23.40	0.10	9.05	202.63	6.44	0.99	1.01	0.99	1.01	0.37	0.00	0.00	0.00	15.40	0.00	0.00
----	---------	---------	-------	------	------	--------	------	------	------	------	------	------	------	------	------	-------	------	------

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW m³/s	PCT EFF	ADVCTV VELO m/s	TRAVEL TIME days	DEPTH m	WIDTH m	VOLUME m³	SURFACE AREA m²	X-SECT AREA m²	TIDAL PRISM m³	TIDAL VELO m/s	DISPNSN m²/s	MEAN VELO m/s	
55	2.90	2.80	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
56	2.80	2.70	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
57	2.70	2.60	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
58	2.60	2.50	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
59	2.50	2.40	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
60	2.40	2.30	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
61	2.30	2.20	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
62	2.20	2.10	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
63	2.10	2.00	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
64	2.00	1.90	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
65	1.90	1.80	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
66	1.80	1.70	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
67	1.70	1.60	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
68	1.60	1.50	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
69	1.50	1.40	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
70	1.40	1.30	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
71	1.30	1.20	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
72	1.20	1.10	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
73	1.10	1.00	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
74	1.00	0.90	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
75	0.90	0.80	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
76	0.80	0.70	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
77	0.70	0.60	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
78	0.60	0.50	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
79	0.50	0.40	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
80	0.40	0.30	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
81	0.30	0.20	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
82	0.20	0.10	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
83	0.10	0.00	1.05840	2.6	0.02560	0.05	1.46	28.38	4134.53	2837.70	41.35	0.00	0.000	1.167	0.026	
TOT						1.31			119901.39		82293.30					
Avg						0.02560			1.46		28.38					
CUM						3.33						41.35				

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. mg/L	REAER 1/d	BOD#1 DECAY 1/d	BOD#1 SETT 1/d	ABOD#1 DECAY 1/d	BOD#2 DECAY 1/d	BOD#2 SETT 1/d	ABOD#2 DECAY 1/d	BKGD SOD *	FULL SOD *	CORR SOD *	ORGN DECAY 1/d	ORGN SETT 1/d	NH3 DECAY 1/d	NH3 SRCE *	DENIT RATE 1/d	PO4 SRCE *	ALG PROD **	MAC PROD **	COLI DECAY 1/d	NCM DECAY 1/d	NCM SETT 1/d
55	2.800	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.91	0.00	0.00	0.00	0.00	0.00
56	2.700	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.00
57	2.600	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00	0.00
58	2.500	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.94	0.00	0.00	0.00	0.00	0.00
59	2.400	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00
60	2.300	8.51	0.54	0.16	0.22	0.00	0.02	0.11	0.00	1.09	1.09	1.09	0.15	0.22	0.00	0.00	0.00	0.96	0.00	0.00	0.00	0.00	0.00

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

* g/m²/d ** mg/L/day

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I MG/L	CM-II MG/L	DO mg/L	BOD#1 mg/L	BOD#2 mg/L	EBOD#1 mg/L	EBOD#2 mg/L	ORGN mg/L	NH3 mg/L	NO3+2 mg/L	TOTN mg/L	PHOS mg/L	CHL A µg/L	MACRO g/m³	COLI #/100mL	NCM
55	2.800	23.40	0.10	9.05	202.63	6.50	1.01	1.00	1.01	1.00	0.37	0.00	0.00	0.00	15.56	0.00	0.	0.00	
56	2.700	23.40	0.10	9.05	202.63	6.54	1.02	1.00	1.02	1.00	0.38	0.00	0.00	0.00	15.72	0.00	0.	0.00	
57	2.600	23.40	0.10	9.05	202.63	6.58	1.04	1.00	1.04	1.00	0.38	0.00	0.00	0.00	15.88	0.00	0.	0.00	
58	2.500	23.40	0.10	9.05	202.63	6.63	1.05	1.00	1.05	1.00	0.38	0.00	0.00	0.00	16.03	0.00	0.	0.00	
59	2.400	23.40	0.11	9.05	202.63	6.67	1.06	0.99	1.06	0.99	0.38	0.00	0.00	0.00	16.19	0.00	0.	0.00	
60	2.300	23.40	0.11	9.05	202.63	6.71	1.08	0.99	1.08	0.99	0.38	0.00	0.00	0.00	16.35	0.00	0.	0.00	
61	2.200	23.40	0.11	9.05	202.63	6.75	1.09	0.99	1.09	0.99	0.39	0.00	0.00	0.00	16.51	0.00	0.	0.00	
62	2.100	23.40	0.11	9.05	202.63	6.79	1.10	0.98	1.10	0.98	0.39	0.00	0.00	0.00	16.67	0.00	0.	0.00	
63	2.000	23.40	0.11	9.05	202.63	6.83	1.12	0.98	1.12	0.98	0.39	0.00	0.00	0.00	16.83	0.00	0.	0.00	
64	1.900	23.40	0.11	9.05	202.63	6.87	1.13	0.98	1.13	0.98	0.39	0.00	0.00	0.00	16.99	0.00	0.	0.00	
65	1.800	23.40	0.11	9.05	202.63	6.91	1.14	0.98	1.14	0.98	0.39	0.00	0.00	0.00	17.14	0.00	0.	0.00	
66	1.700	23.40	0.11	9.05	202.63	6.95	1.15	0.97	1.15	0.97	0.39	0.00	0.00	0.00	17.30	0.00	0.	0.00	
67	1.600	23.40	0.11	9.05	202.63	6.98	1.17	0.97	1.17	0.97	0.40	0.00	0.00	0.00	17.46	0.00	0.	0.00	
68	1.500	23.40	0.11	9.05	202.63	7.02	1.18	0.97	1.18	0.97	0.40	0.00	0.00	0.00	17.62	0.00	0.	0.00	
69	1.400	23.40	0.12	9.05	202.63	7.06	1.19	0.96	1.19	0.96	0.40	0.00	0.00	0.00	17.78	0.00	0.	0.00	
70	1.300	23.40	0.12	9.05	202.63	7.09	1.20	0.96	1.20	0.96	0.40	0.00	0.00	0.00	17.94	0.00	0.	0.00	
71	1.200	23.40	0.12	9.05	202.63	7.13	1.21	0.96	1.21	0.96	0.40	0.00	0.00	0.00	18.10	0.00	0.	0.00	
72	1.100	23.40	0.12	9.05	202.63	7.16	1.22	0.96	1.22	0.96	0.40	0.00	0.00	0.00	18.26	0.00	0.	0.00	
73	1.000	23.40	0.12	9.05	202.63	7.19	1.23	0.95	1.23	0.95	0.41	0.00	0.00	0.00	18.41	0.00	0.	0.00	
74	0.900	23.40	0.12	9.05	202.63	7.23	1.24	0.95	1.24	0.95	0.41	0.00	0.00	0.00	18.57	0.00	0.	0.00	
75	0.800	23.40	0.12	9.05	202.63	7.26	1.25	0.95	1.25	0.95	0.41	0.00	0.00	0.00	18.73	0.00	0.	0.00	
76	0.700	23.40	0.12	9.05	202.63	7.29	1.26	0.95	1.26	0.95	0.41	0.00	0.00	0.00	18.89	0.00	0.	0.00	
77	0.600	23.40	0.12	9.05	202.63	7.33	1.27	0.94	1.27	0.94	0.41	0.00	0.00	0.00	19.05	0.00	0.	0.00	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

78	0.500	23.40	0.12	9.05	202.63	7.36	1.28	0.94	1.28	0.94	0.41	0.00	0.00	0.00	0.00	19.21	0.00	0.	0.00
79	0.400	23.40	0.13	9.05	202.63	7.39	1.29	0.94	1.29	0.94	0.41	0.00	0.00	0.00	0.00	19.37	0.00	0.	0.00
80	0.300	23.40	0.13	9.05	202.63	7.42	1.30	0.93	1.30	0.93	0.41	0.00	0.00	0.00	0.00	19.52	0.00	0.	0.00
81	0.200	23.40	0.13	9.05	202.63	7.45	1.31	0.93	1.31	0.93	0.42	0.00	0.00	0.00	0.00	19.68	0.00	0.	0.00
82	0.100	23.40	0.13	9.05	202.63	7.48	1.32	0.93	1.32	0.93	0.42	0.00	0.00	0.00	0.00	19.84	0.00	0.	0.00
83	0.000	23.40	0.13	9.05	202.63	7.50	1.33	0.93	1.33	0.93	0.42	0.00	0.00	0.00	0.00	20.00	0.00	0.	0.00

STREAM SUMMARY

HEADWATER

PETIT CAILLOU WATERSHED MODEL

PETIT CAILLOU WINTER PROJECTION RUN 75% REDUCTION

TRAVEL TIME = 3.33 DAYS

MAXIMUM EFFLUENT = 2.65 PERCENT

FLOW = 0.78551 TO 1.05840 m³/s

DISPERSION = 0.2440 TO 1.1670 m²/s

VELOCITY = 0.02560 TO 0.05149 m/s

DEPTH = 0.88 TO 1.46 m

WIDTH = 19.78 TO 31.70 m

BOD DECAY = 0.16 TO 0.25 per day

NH3 DECAY = 0.00 TO 0.00 per day

SOD = 0.42 TO 1.31 g/m²/d

NH3 SOURCE = 0.00 TO 0.00 g/m²/d

REAERATION = 0.54 TO 0.93 per day

BOD SETTLING = 0.22 TO 0.22 per day

NBOD DECAY = 0.13 TO 0.15 per day

NBOD SETTLING = 0.22 TO 0.22 per day

TEMPERATURE = 23.40 TO 23.40 deg C

DISSOLVED OXYGEN = 6.34 TO 7.64 mg/L

.....EXECUTION COMPLETED

Bayou Petit Caillou Projection Overlay File

MRK 6.2 Begin Reach 2

MRK 3.2 Begin Reach 3

MRK 2.9 Begin Reach 4

MRK 3.0 St. Louis Canal

STD 5 5.0 8.3 0.0

END

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix C – Survey Data Measurements and Analysis Results

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix C1 – Water Quality Data

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Site_Number	Site_Description	Site_Location	Lab_ID	Lab_Sample_Type	Analysis_Name	Result	Units	Reference_Method	Analysis_Set-Up	Analysis_Read	Date_Nitrates_Sampled
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	TSS	5.0	ppm	160.2	8/22/2003	8/25/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	TDS	106	ppm	100.1	8/22/2003	8/25/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	Alkalinity	106	ppm	310.1	8/22/2003	8/25/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	Turbidity	3.3	NTU	SM 2130B	8/21/2003	8/21/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	Specific Conductance	251	umhos/cm	120.1	8/25/2003	8/25/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	True Color	30	PCU	110.2	8/21/2003	8/21/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	Chloride, Ion Chromatograph	11.5	ppm	300.0	9/15/2003	9/15/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18235	TRG	Sulfate	10.0	ppm	300.0	9/15/2003	9/15/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18236	TRG	Sodium	10.1	ppm	200.7	9/29/2003	9/29/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18237	TRG	Hardness	112	ppm	130.2	9/5/2003	9/5/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18237	TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/28/2003	8/28/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18237	TRG	TP	0.28	ppm	365.4	9/2/2003	9/2/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18237	TRG	TKN	0.84	ppm	351.2	9/2/2003	9/2/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18238	TRG	Ammonia-Nitrogen	0.15	ppm	350.3	8/28/2003	8/28/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18238	TRG	TOC	7.9	ppm	415.1	8/28/2003	8/29/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	pH, Ultimate BOD survey	7.99	pH units	150.1	10/20/2003	10/20/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	TOC (60 Day BOD)	4.7	ppm	415.1	10/20/2003	10/20/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	TKN (60 Day BOD)	0.31	ppm	351.2	11/2/2003	11/4/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 1	ND	ppm	353.2	9/17/2003	9/17/2003	8/21/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/17/2003	9/17/2003	8/22/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 3	0.05	ppm	353.2	9/22/2003	9/22/2003	8/27/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 4	0.08	ppm	353.2	9/22/2003	9/22/2003	8/29/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 5	0.28	ppm	353.2	9/22/2003	9/22/2003	9/2/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 6	0.36	ppm	353.2	10/20/2003	10/20/2003	9/5/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 7	0.41	ppm	353.2	10/20/2003	10/20/2003	9/10/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 8	0.47	ppm	353.2	10/20/2003	10/20/2003	9/19/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 9	0.50	ppm	353.2	10/20/2003	10/20/2003	9/30/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Reading 10	0.49	ppm	353.2	10/20/2003	10/20/2003	10/10/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	NO2NO3 - Final	0.53	ppm	353.2	11/10/2003	11/10/2003	10/20/2003
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 1	1.0	ppm	5210B	8/21/2003	8/22/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 2	2.4	ppm	5210B	8/21/2003	8/25/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 3	3.1	ppm	5210B	8/21/2003	8/27/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 4	3.7	ppm	5210B	8/21/2003	8/29/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 5	5.1	ppm	5210B	8/21/2003	8/2/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 6	5.9	ppm	5210B	8/21/2003	8/5/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 7	6.6	ppm	5210B	8/21/2003	9/10/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 8	7.8	ppm	5210B	8/21/2003	9/19/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 9	8.4	ppm	5210B	8/21/2003	9/30/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Reading 10	8.9	ppm	5210B	8/21/2003	10/10/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18239	TRG	Non-Filtered BOD 60 - Final	9.2	ppm	5210B	8/21/2003	10/20/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18240	TRG	Chlorophyll A (raw)	226	ug/L	445 (modifie	9/9/2003	9/10/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18240	TRG	Volume of sample, Chlorophyll A (raw)	200	ml	445 (modifie	9/9/2003	9/10/2003	
BPC1	Bayou Petit Caillou	at confluence of Bayou Terrebonne	AF18240	TRG	Chlorophyll A (calculated)	11.3	ug/L	445 (modifie	9/9/2003	9/10/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18241	TRG	TSS	6.5	ppm	160.2	8/22/2003	8/25/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18241	TRG	Alkalinity	91.6	ppm	310.1	8/25/2003	8/25/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18241	TRG	Turbidity	196	NTU	SM 2130B	8/25/2003	8/25/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18241	TRG	Specific Conductance	196	umhos/cm	120.1	8/25/2003	8/25/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18241	TRG	True Color	60	PCU	110.2	8/21/2003	8/21/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18241	TRG	Chloride, Ion Chromatograph	5.8	ppm	300.0	9/15/2003	9/15/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18242	TRG	Sulfate	4.9	ppm	300.0	9/15/2003	9/15/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18242	TRG	Sodium	6.3	ppm	200.7	9/29/2003	9/29/2003	
PC2	Bayou Petit Caillou	at Hwy 24 bridge	AF18243	TRG	Hardness	95.7	ppm	130.2	9/5/2003	9/5/2003	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18243 TRG	Nitrate+Nitrite Nitrogen	ND ppm	353.2	8/28/2003	8/28/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18243 TRG	TP	0.57 ppm	365.4	9/2/2003	9/2/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18243 TRG	TKN	0.96 ppm	351.2	9/2/2003	9/2/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18243 TRG	Ammonia-Nitrogen	0.17 ppm	350.3	8/28/2003	8/28/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18244 TRG	TOC	10.5 ppm	415.1	8/28/2003	8/28/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	pH_Ultimate BOD survey	8.00 pH units	150.1	10/20/2003	10/20/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	TOC (80 Day BOD)	4.7 ppm	415.1	10/20/2003	10/20/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	TKN (60 Day BOD)	0.47 ppm	351.2	11/3/2003	11/4/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Initial Reading	ND ppm	353.2	9/17/2003	9/17/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 1	ND ppm	353.2	9/17/2003	9/17/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 2	ND ppm	353.2	9/17/2003	9/25/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 3	ND ppm	353.2	9/22/2003	9/27/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 4	ND ppm	353.2	9/22/2003	8/29/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 5	0.22 ppm	353.2	9/22/2003	9/2/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 6	0.26 ppm	353.2	10/20/2003	10/20/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 7	0.43 ppm	353.2	10/20/2003	10/20/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 8	0.50 ppm	353.2	10/20/2003	10/20/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 9	0.53 ppm	353.2	10/20/2003	9/30/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Reading 10	0.54 ppm	353.2	10/20/2003	10/10/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	NO2NO3 - Final	0.58 ppm	353.2	11/10/2003	10/20/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 1	1.3 ppm	5210B	8/21/2003	8/2/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 2	3.1 ppm	5210B	8/21/2003	8/25/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 3	4.4 ppm	5210B	8/21/2003	8/27/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 4	5.2 ppm	5210B	8/21/2003	8/29/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 5	7.2 ppm	5210B	8/21/2003	9/2/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 6	8.2 ppm	5210B	8/21/2003	9/5/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 7	9.8 ppm	5210B	8/21/2003	9/10/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 8	11.1 ppm	5210B	8/21/2003	9/13/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 9	12.2 ppm	5210B	8/21/2003	9/16/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Reading 10	13.0 ppm	5210B	8/21/2003	10/1/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18245 TRG	Non-Filtered BOD 60 - Final	13.8 ppm	5210B	8/21/2003	10/2/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18246 TRG	Chlorophyll A (calculated)	8.4 ug/L	445 (modifie	9/9/2003	9/1/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18246 TRG	Chlorophyll A (raw)	168 ug/L	445 (modifie	9/9/2003	9/1/2003
PC2	Bayou Petit Caillou at Hwy 24 bridge	AF18246 TRG	Volume of sample, Chlorophyll A (raw)	200 ml	445 (modifie	9/9/2003	9/1/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	TSS	30.0 ppm	160.2	8/25/2003	8/26/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	TDS	204 ppm	160.1	8/21/2003	8/2/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	Alkalinity	141 ppm	310.1	8/25/2003	8/25/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	Turbidity	15 NTU	SM 2130B	8/21/2003	8/2/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	Specific Conductance	324 umhos/cm	120.1	8/25/2003	8/25/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	True Color	50 PCU	110.2	8/21/2003	8/2/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	Chloride Ion Chromatograph	19.3 ppm	300.0	9/15/2003	9/15/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18247 TRG	Sulfate	8.7 ppm	300.0	9/15/2003	9/15/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18248 TRG	Sodium	16.3 ppm	200.7	9/29/2003	9/29/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18249 TRG	Hardness	143 ppm	130.2	9/5/2003	9/5/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18249 TRG	Nitrate+Nitrite Nitrogen	ND ppm	353.2	8/28/2003	8/28/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18249 TRG	TP	0.68 ppm	365.4	9/2/2003	9/2/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18249 TRG	TKN	1.20 ppm	351.2	9/2/2003	9/2/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18249 TRG	Ammonia-Nitrogen	0.35 ppm	350.3	8/28/2003	8/28/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18250 TRG	TOC	8.8 ppm	415.1	8/28/2003	8/28/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18251 TRG	pH_Ultimate BOD survey	8.05 pH units	150.1	10/20/2003	10/20/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18251 TRG	TOC (80 Day BOD)	8.0 ppm	415.1	10/20/2003	10/20/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18251 TRG	TKN (60 Day BOD)	0.41 ppm	351.2	11/3/2003	11/4/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18251 TRG	NO2NO3 - Initial Reading	ND ppm	353.2	9/17/2003	9/17/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18251 TRG	NO2NO3 - Reading 1	ND ppm	353.2	9/17/2003	9/17/2003
PC3	St. Louis Canal at confluence of Bayou Petit Caillou	AF18251 TRG	NO2NO3 - Reading 2	ND ppm	353.2	9/17/2003	8/25/2003

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 3	ND	ppm	353.2	9/2/2003	9/22/2003	8/7/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 4	0.10	ppm	353.2	9/2/2003	9/22/2003	8/7/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 5	0.36	ppm	353.2	9/2/2003	9/22/2003	8/7/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 6	0.46	ppm	353.2	10/2/2003	10/20/2003	9/6/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 7	0.50	ppm	353.2	10/2/2003	10/20/2003	9/1/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 8	0.53	ppm	353.2	10/2/2003	10/20/2003	9/1/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 9	0.54	ppm	353.2	10/2/2003	10/20/2003	9/3/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Reading 10	0.56	ppm	353.2	10/2/2003	10/20/2003	10/1/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	NO2N03 - Final	0.61	ppm	353.2	11/1/2003	11/10/2003	10/2/2003
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 1	1.0	ppm	52108	8/21/2003	8/22/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 2	2.5	ppm	52108	8/21/2003	8/25/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 3	3.6	ppm	52108	8/21/2003	8/27/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 4	4.5	ppm	52108	8/21/2003	8/29/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 5	6.4	ppm	52108	8/21/2003	9/2/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 6	7.3	ppm	52108	8/21/2003	9/6/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 7	8.1	ppm	52108	8/21/2003	9/10/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 8	9.2	ppm	52108	8/21/2003	9/14/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 9	10.0	ppm	52108	8/21/2003	9/30/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Reading 10	10.6	ppm	52108	8/21/2003	10/1/2003	
PC3	St. Louis Canal	at confluence of Bayou Petit Caillou	AF18251 TRG	Non-Filtered BOD 60 - Final	11.1	ppm	52108	8/21/2003	10/20/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	TSS	8.0	ppm	160.2	8/25/2003	8/26/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	TDS	143	ppm	160.1	8/21/2003	8/22/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	Alkalinity	89.7	ppm	310.1	8/25/2003	8/25/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	Turbidity	3.8	NTU	SM 2130B	8/21/2003	8/21/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	Specific Conductance	220	umhos/cm	120.1	8/25/2003	8/25/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	True Color	40	PCU	110.2	8/21/2003	8/21/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	Chloride, Ion Chromatograph	5.4	ppm	30.0	8/21/2003	8/21/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18252 TRG	Sulfate	10.3	ppm	300.0	9/1/2003	9/1/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18253 TRG	Sodium	8.4	ppm	200.7	9/2/2003	9/2/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18254 TRG	Hardness	95.6	ppm	130.2	9/5/2003	9/5/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18254 TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/28/2003	8/28/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18254 TRG	TP	0.39	ppm	365.4	9/2/2003	9/2/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18254 TRG	TKN	0.81	ppm	351.2	9/2/2003	9/2/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18254 TRG	Ammonia-Nitrogen	0.14	ppm	350.3	8/29/2003	8/29/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18255 TRG	TOC	8.1	ppm	415.1	8/29/2003	8/29/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	pH, Ultimate BOD survey	7.93	pH units	150.1	10/20/2003	10/20/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	TOC (90 Day BOD)	5.4	ppm	415.1	10/30/2003	10/30/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	TKN (60 Day BOD)	6.0	ppm	353.2	11/3/2003	11/4/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Initial Reading	ND	ppm	353.2	9/17/2003	9/17/2003	8/7/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 1	ND	ppm	353.2	9/17/2003	9/17/2003	8/2/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 2	ND	ppm	353.2	9/17/2003	9/17/2003	8/2/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 3	ND	ppm	353.2	9/22/2003	9/22/2003	8/2/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 4	ND	ppm	353.2	9/22/2003	9/22/2003	8/2/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 5	0.15	ppm	353.2	9/22/2003	9/22/2003	9/2/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 6	0.11	ppm	353.2	10/20/2003	10/20/2003	9/5/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 7	0.28	ppm	353.2	10/20/2003	10/20/2003	9/1/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 8	0.31	ppm	353.2	10/20/2003	10/20/2003	9/1/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 9	0.34	ppm	353.2	10/20/2003	10/20/2003	9/3/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Reading 10	0.34	ppm	353.2	10/20/2003	10/20/2003	10/1/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	NO2N03 - Final	0.39	ppm	353.2	11/1/2003	11/10/2003	10/20/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 1	0.6	ppm	52108	8/21/2003	8/22/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 2	1.6	ppm	52108	8/21/2003	8/22/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 3	2.3	ppm	52108	8/21/2003	8/22/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 4	2.6	ppm	52108	8/21/2003	8/23/2003	
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 5	3.7	ppm	52108	8/21/2003	8/23/2003	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 6	4.3	ppm	5210B	8/21/2003	9/5/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 7	5.1	ppm	5210B	8/21/2003	9/10/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 8	6.3	ppm	5210B	8/21/2003	9/19/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 9	7.0	ppm	5210B	8/21/2003	9/30/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Reading 10	7.5	ppm	5210B	8/21/2003	10/10/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18256 TRG	Non-Filtered BOD 60 - Final	7.9	ppm	5210B	8/21/2003	10/20/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18257 TRG	Chlorophyll A (calculated)	7.5	ug/L	445 (modifie	9/9/2003	9/10/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18257 TRG	Chlorophyll A (raw)	150	ug/L	445 (modifie	9/9/2003	9/10/2003
PC3A	Bayou Petit Caillou	above St. Louis Canal	AF18257 TRG	Volume of sample, Chlorophyll A (raw)	200	ml	445 (modifie	9/9/2003	9/10/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	TSS	5.0	ppm	160.2	8/25/2003	8/26/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	TDS	131	ppm	160.1	8/21/2003	8/22/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	Alkalinity	89.6	ppm	310.1	8/25/2003	8/25/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	Turbidity	3.2	NTU	SM 2130B	8/21/2003	8/21/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	Specific Conductance	221	umhos/cm	120.1	8/25/2003	8/25/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	True Color	40	PCU	110.2	8/21/2003	8/21/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	Chloride, Ion Chromatograph	9.5	ppm	300.0	9/15/2003	9/15/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	Sulfate	10.0	ppm	300.0	9/15/2003	9/15/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18258 TRG	Sodium	8.6	ppm	200.7	9/29/2003	9/29/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18260 TRG	Hardness	95.8	ppm	130.2	9/5/2003	9/5/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18260 TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/28/2003	8/28/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18260 TRG	TP	0.40	ppm	365.4	9/2/2003	9/2/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18260 TRG	TKN	0.92	ppm	351.2	9/2/2003	9/2/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18260 TRG	Ammonia-Nitrogen	0.15	ppm	350.3	8/28/2003	8/28/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18261 TRG	TOC	8.1	ppm	415.1	8/28/2003	8/29/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	pH, Ultimate BOD survey	7.89	pH units	150.1	10/20/2003	10/20/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	TOC (60 Day BOD)	5.3	ppm	415.1	10/30/2003	10/30/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	TKN (60 Day BOD)	0.39	ppm	351.2	11/3/2003	11/4/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	9/17/2003	9/17/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 1	ND	ppm	353.2	9/17/2003	9/17/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/17/2003	9/17/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 3	ND	ppm	353.2	9/22/2003	9/22/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 4	ND	ppm	353.2	9/22/2003	9/22/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 5	0.13	ppm	353.2	9/22/2003	9/22/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 6	0.15	ppm	353.2	10/20/2003	9/5/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 7	0.26	ppm	353.2	10/20/2003	9/10/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 8	0.32	ppm	353.2	10/20/2003	9/19/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 9	0.37	ppm	353.2	10/20/2003	9/30/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Reading 10	0.37	ppm	353.2	10/20/2003	10/10/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	NO2NO3 - Final	0.40	ppm	353.2	11/10/2003	11/20/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	5210B	8/21/2003	8/22/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 2	1.8	ppm	5210B	8/21/2003	8/25/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 3	2.6	ppm	5210B	8/21/2003	8/27/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 4	3.0	ppm	5210B	8/21/2003	8/29/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 5	4.1	ppm	5210B	8/21/2003	9/2/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 6	4.7	ppm	5210B	8/21/2003	9/5/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 7	5.5	ppm	5210B	8/21/2003	9/10/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 8	6.7	ppm	5210B	8/21/2003	9/19/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 9	7.5	ppm	5210B	8/21/2003	9/30/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Reading 10	8.0	ppm	5210B	8/21/2003	10/10/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18262 TRG	Non-Filtered BOD 60 - Final	14.1	ppm	5210B	8/21/2003	10/20/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18263 TRG	Chlorophyll A (calculated)	15.4	ug/L	445 (modifie	9/9/2003	9/10/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18263 TRG	Volume of sample, Chlorophyll A (raw)	200	ml	445 (modifie	9/9/2003	9/10/2003
PC4	Bayou Petit Caillou	below St. Louis Canal	AF18263 TRG	Chlorophyll A (raw)	308	ug/L	445 (modifie	9/9/2003	9/10/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	TSS	6.0	ppm	160.2	8/25/2003	8/26/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	TDS	145	ppm	160.1	8/21/2003	8/22/2003

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	Alkalinity	87.9	ppm	310.1	8/25/2003	8/25/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	Turbidity	4.7	NTU	SM 2130B	8/21/2003	8/21/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	Specific Conductance	247	umhos/cm	120.1	8/25/2003	8/25/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	True Color	30	PCU	110.2	8/21/2003	8/21/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	Chloride, Ion Chromatograph	12.9	ppm	300.0	9/15/2003	9/15/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18264 TRG	Sulfate	11.7	ppm	300.0	9/15/2003	9/15/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18265 TRG	Sodium	12.0	ppm	200.7	9/29/2003	9/29/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18266 TRG	Hardness	103	ppm	130.2	9/5/2003	9/5/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18266 TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/28/2003	8/28/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18266 TRG	TP	0.31	ppm	365.4	9/2/2003	9/2/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18266 TRG	TKN	1.00	ppm	351.2	9/2/2003	9/2/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18266 TRG	Ammonia-Nitrogen	ND	ppm	350.3	8/28/2003	8/28/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18267 TRG	TOC	10.1	ppm	415.1	9/5/2003	9/3/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	pH, Ultimate BOD survey	7.95	pH units	150.1	10/20/2003	10/20/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	TOC (60 Day BOD)	5.8	ppm	415.1	10/30/2003	10/30/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	TKN (60 Day BOD)	0.31	ppm	351.2	11/5/2003	11/4/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Initial Reading	ND	ppm	353.2	9/17/2003	9/17/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 1	ND	ppm	353.2	9/17/2003	9/17/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 2	ND	ppm	353.2	9/17/2003	9/17/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 3	ND	ppm	353.2	9/22/2003	8/27/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 4	ND	ppm	353.2	9/22/2003	8/29/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 5	ND	ppm	353.2	9/22/2003	9/2/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 6	0.18	ppm	353.2	10/20/2003	9/5/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 7	0.27	ppm	353.2	10/20/2003	10/20/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 8	0.34	ppm	353.2	10/20/2003	9/10/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 9	0.38	ppm	353.2	10/20/2003	9/30/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Reading 10	0.37	ppm	353.2	10/20/2003	10/10/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	NO2NO3 - Final	0.40	ppm	353.2	11/10/2003	10/20/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 1	0.7	ppm	5210B	8/21/2003	8/22/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 2	2.1	ppm	5210B	8/21/2003	8/25/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 3	2.8	ppm	5210B	8/21/2003	8/27/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 4	3.2	ppm	5210B	8/21/2003	8/29/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 5	4.4	ppm	5210B	8/21/2003	9/2/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 6	5.0	ppm	5210B	8/21/2003	9/5/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 7	5.8	ppm	5210B	8/21/2003	9/10/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 8	7.1	ppm	5210B	8/21/2003	9/19/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 9	7.8	ppm	5210B	8/21/2003	9/30/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Reading 10	8.4	ppm	5210B	8/21/2003	10/10/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18268 TRG	Non-Filtered BOD 60 - Final	9.1	ppm	5210B	8/21/2003	10/20/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18269 TRG	Chlorophyll A (calculated)	21.6	ug/L	445 (modifie	9/9/2003	9/9/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18269 TRG	Chlorophyll A (raw)	432	ug/L	445 (modifie	9/9/2003	9/10/2003
PC5	Bayou Petit Caillou	at Klondyke Road Bridge	AF18269 TRG	Volume of sample, Chlorophyll A (raw)	200	ml	445 (modifie	9/9/2003	9/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	TSS	ND	ppm	160.2	8/25/2003	8/26/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	TDS	ND	ppm	160.1	8/21/2003	8/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	Alkalinity	ND	ppm	310.1	8/25/2003	8/25/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	Turbidity	ND	NTU	SM 2130B	8/21/2003	8/21/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	Specific Conductance	ND	umhos/cm	120.1	8/25/2003	8/25/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	True Color	ND	PCU	110.2	8/21/2003	8/21/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	Chloride, Ion Chromatograph	ND	ppm	300.0	9/15/2003	9/15/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18270 FB	Sulfate	ND	ppm	300.0	9/15/2003	9/15/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18271 FB	Sodium	ND	ppm	200.7	9/29/2003	9/29/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18272 FB	Hardness	ND	ppm	130.2	9/19/2003	9/19/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18272 FB	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/28/2003	8/28/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18272 FB	TP	ND	ppm	365.4	9/2/2003	9/2/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18272 FB	TKN	0.21	ppm	351.2	9/2/2003	9/2/2003

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

PC6	Bayou Petit Caillou	near Honey Road	AF18272 FB	Ammonia-Nitrogen	ND	ppm	350.3	8/28/2003	8/28/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18273 FB	TOC	ND	ppm	415.1	9/5/2003	9/3/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	pH, Ultimate BOD survey	6.26	pH units	150.1	10/20/2003	10/20/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	TOC (60 Day BOD)	ND	ppm	415.1	10/30/2003	10/30/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	TKN (60 Day BOD)	ND	ppm	351.2	11/3/2003	11/4/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Initial Reading	ND	ppm	353.2	9/17/2003	9/17/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 1	ND	ppm	353.2	9/17/2003	9/17/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 2	ND	ppm	353.2	9/17/2003	9/17/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 3	ND	ppm	353.2	9/22/2003	9/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 4	ND	ppm	353.2	9/22/2003	9/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 5	ND	ppm	353.2	9/22/2003	9/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 6	ND	ppm	353.2	10/20/2003	9/5/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 7	ND	ppm	353.2	10/20/2003	9/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 8	ND	ppm	353.2	10/20/2003	9/19/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 9	ND	ppm	353.2	10/20/2003	9/30/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Reading 10	ND	ppm	353.2	10/20/2003	10/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	NO ₂ NO ₃ - Final	ND	ppm	353.2	11/10/2003	10/20/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 1	0.1	ppm	5210B	8/21/2003	8/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 2	0.2	ppm	5210B	8/21/2003	8/25/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 3	0.7	ppm	5210B	8/21/2003	8/27/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 4	0.7	ppm	5210B	8/21/2003	8/29/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 5	0.7	ppm	5210B	8/21/2003	9/2/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 6	0.8	ppm	5210B	8/21/2003	9/5/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 7	0.8	ppm	5210B	8/21/2003	9/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 8	0.9	ppm	5210B	8/21/2003	9/19/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 9	1.0	ppm	5210B	8/21/2003	9/30/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Reading 10	1.0	ppm	5210B	8/21/2003	10/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18274 FB	Non-Filtered BOD 60 - Final	1.0	ppm	5210B	8/21/2003	10/20/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	TSS	6.5	ppm	160.2	8/25/2003	8/26/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	TDS	154	ppm	160.1	8/21/2003	8/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	Alkalinity	110	ppm	310.1	8/25/2003	8/25/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	Turbidity	4.5	NTU	SM 2130B	8/21/2003	8/21/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	Specific Conductance	278	umhos/cm	120.1	8/25/2003	8/25/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	True Color	30	PCU	110.2	8/21/2003	8/21/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	Chloride, Ion Chromatograph	17.9	ppm	300.0	9/16/2003	9/16/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18275 TRG	Sulfate	11.4	ppm	300.0	9/16/2003	9/16/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18276 TRG	Sodium	14.5	ppm	200.7	9/29/2003	9/29/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18277 TRG	Hardness	116	ppm	130.2	9/18/2003	9/18/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18277 TRG	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/28/2003	8/28/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18277 TRG	TP	0.27	ppm	365.4	9/2/2003	9/2/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18277 TRG	TKN	0.96	ppm	351.2	9/2/2003	9/2/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18277 TRG	Ammonia-Nitrogen	0.12	ppm	350.3	9/11/2003	9/11/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18278 TRG	TOC	9.9	ppm	415.1	9/3/2003	9/3/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	pH, Ultimate BOD survey	8.10	pH units	150.1	10/20/2003	10/20/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	TOC (60 Day BOD)	5.9	ppm	415.1	10/30/2003	10/30/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	TKN (60 Day BOD)	0.23	ppm	351.2	11/3/2003	11/5/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Initial Reading	ND	ppm	353.2	9/17/2003	9/17/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 1	ND	ppm	353.2	9/17/2003	8/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 2	ND	ppm	353.2	9/17/2003	8/25/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 3	ND	ppm	353.2	9/22/2003	8/27/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 4	ND	ppm	353.2	9/22/2003	8/29/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 5	0.25	ppm	353.2	9/22/2003	9/2/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 6	0.28	ppm	353.2	10/20/2003	9/5/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 7	0.40	ppm	353.2	10/20/2003	9/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO ₂ NO ₃ - Reading 8	0.47	ppm	353.2	10/20/2003	9/19/2003

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO2NO3 - Reading 9	0.48	ppm	353.2	10/20/2003	10/20/2003	9/30/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO2NO3 - Reading 10	0.49	ppm	353.2	10/20/2003	10/20/2003	10/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	NO2NO3 - Final	0.52	ppm	353.2	11/10/2003	11/10/2003	10/20/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 1	1.1	ppm	5210B	8/21/2003	8/22/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 2	2.6	ppm	5210B	8/21/2003	8/25/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 3	3.6	ppm	5210B	8/21/2003	8/27/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 4	3.9	ppm	5210B	8/21/2003	8/29/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 5	5.4	ppm	5210B	8/21/2003	9/2/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 6	5.9	ppm	5210B	8/21/2003	9/5/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 7	6.8	ppm	5210B	8/21/2003	9/10/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 8	7.9	ppm	5210B	8/21/2003	9/19/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 9	8.6	ppm	5210B	8/21/2003	9/30/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Reading 10	9.2	ppm	5210B	8/21/2003	10/10/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18279 TRG	Non-Filtered BOD 60 - Final	9.6	ppm	5210B	8/21/2003	10/20/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18280 TRG	Chlorophyll A (raw)	400	ug/L	445 (modifie	9/9/2003	9/10/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18280 TRG	Chlorophyll A (calculated)	20.0	ug/L	445 (modifie	9/9/2003	9/10/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18280 TRG	Volume of sample, Chlorophyll A (raw)	200	ml	445 (modifie	9/9/2003	9/10/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	TSS	7.5	ppm	160.2	8/25/2003	8/26/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	TDS	162	ppm	160.1	8/21/2003	8/22/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	Alkalinity	111	ppm	310.1	8/25/2003	8/25/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	Turbidity	4.6	NTU	SM 2130B	8/21/2003	8/21/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	Specific Conductance	280	umhos/cm	120.1	8/25/2003	8/25/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	True Color	30	PCU	110.2	8/21/2003	8/21/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	Chloride, Ion Chromatograph	17.2	ppm	300.0	8/25/2003	9/25/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18281 FD	Sulfate	12.5	ppm	300.0	9/25/2003	9/25/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18282 FD	Sodium	14.3	ppm	200.7	9/29/2003	9/29/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18283 FD	Hardness	117	ppm	130.2	9/5/2003	9/5/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18283 FD	Nitrate+Nitrite Nitrogen	ND	ppm	353.2	8/28/2003	8/28/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18283 FD	TP	0.29	ppm	365.4	9/2/2003	9/2/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18283 FD	TKN	0.91	ppm	351.2	9/2/2003	9/2/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18283 FD	Ammonia-Nitrogen	0.11	ppm	350.3	9/11/2003	9/11/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18284 FD	TOC	9.9	ppm	415.1	9/3/2003	9/3/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	pH, Ultimate BOD survey	8.11	pH units	150.1	10/20/2003	10/20/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	TOC (60 Day BOD)	5.9	ppm	415.1	10/30/2003	10/30/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	TKN (60 Day BOD)	0.19	ppm	351.2	11/5/2003	11/5/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Initial Reading	ND	ppm	353.2	9/17/2003	9/17/2003	8/21/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 1	ND	ppm	353.2	9/17/2003	9/17/2003	8/22/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 2	ND	ppm	353.2	9/17/2003	9/17/2003	8/25/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 3	ND	ppm	353.2	9/22/2003	9/22/2003	8/27/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 4	ND	ppm	353.2	9/22/2003	9/22/2003	8/29/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 5	0.32	ppm	353.2	9/22/2003	9/22/2003	9/2/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 6	0.29	ppm	353.2	10/20/2003	10/20/2003	9/5/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 7	0.42	ppm	353.2	10/20/2003	10/20/2003	9/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 8	0.50	ppm	353.2	10/20/2003	10/20/2003	9/19/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 9	0.54	ppm	353.2	10/20/2003	10/20/2003	9/30/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Reading 10	0.54	ppm	353.2	10/20/2003	10/20/2003	10/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	NO2NO3 - Final	0.57	ppm	353.2	11/10/2003	11/10/2003	10/20/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 1	1.3	ppm	5210B	8/21/2003	8/22/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 2	3.0	ppm	5210B	8/21/2003	8/25/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 3	4.0	ppm	5210B	8/21/2003	8/27/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 4	4.3	ppm	5210B	8/21/2003	8/29/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 5	5.9	ppm	5210B	8/21/2003	9/2/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 6	6.4	ppm	5210B	8/21/2003	9/5/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 7	6.8	ppm	5210B	8/21/2003	9/10/2003	
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 8	8.5	ppm	5210B	8/21/2003	9/19/2003	

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 9	9.3	ppm	5210B	8/21/2003	9/30/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Reading 10	9.8	ppm	5210B	8/21/2003	10/10/2003
PC6	Bayou Petit Caillou	near Honey Road	AF18285 FD	Non-Filtered BOD 60 - Final	10.2	ppm	5210B	8/21/2003	10/20/2003

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Bayou Petit Caillou, Subsegment 120503 Lab WQ Report

SITE ID	Collection Date	Chloride	Sulfate	Hardness	Alkalinity	Specific Conductance	Sodium	TOC	TP	TDS	TSS	Ammonia-Nitrogen	Nitrate+Nitrite Nitrogen	TKN	Chlorophyll A (Calculated)
PC1	20-Aug-03	11.5	10	112	106	251	10.1	7.9	0.28	158	5	0.15	ND	0.84	11.3
PC2	20-Aug-03	5.8	4.9	95.7	91.6	196	6.3	10.5	0.57	127	6.5	0.17	ND	0.96	8.4
PC3	20-Aug-03	19.3	8.7	143	141	324	16.3	8.8	0.68	204	30	0.35	ND	1.2	
PC3A	20-Aug-03	9.3	10.3	95.8	89.7	220	8.4	8.1	0.39	143	8	0.14	ND	0.83	7.5
PC4	20-Aug-03	9.5	10	95.8	89.6	221	8.6	8.1	0.4	131	5	0.15	ND	0.92	15.4
PC5	20-Aug-03	12.9	11.7	103	97.9	247	12	10.1	0.31	145	6	ND	ND	1	21.6
PC6	20-Aug-03	17.9	11.4	116	110	278	14.5	9.9	0.27	154	6.5	0.12	ND	0.96	20

Bayou Petit Caillou 120503 TMDL Survey Insitu Measurements

SITE ID	DATE	DEPTH (m)	TEMP, C	DO, mg/L	DO SAT	pH	SPEC COND, umhos/cm	SECCHI DEPTH, ft	SALINITY, ug/L
PC1	20-Aug-03	1	28.05	1.85	30	7.61	252.4	5	0.12
PC2	20-Aug-03	1	27.12	1.92	25.4	7.27	199.2	2.9	0.09
PC3	20-Aug-03	0.5	25.22	0.23	2.8	6.67	589.7		0.27
PC3A	20-Aug-03	1	27.76	0.24	3.1	6.86	213.2	6	0.1
PC4	20-Aug-03	1	28.07	0.44	5.6	6.85	209.5	6	0.1
PC5	20-Aug-03	1	28.47	1.15	15.7	6.86	239.9	4.5	0.11
PC6	20-Aug-03	1	28.5	1.44	18.7	7.2	278.3	4.9	0.13

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix C2 – Cross Sections and Discharge Measurements

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: PC-1 Subsegment: 120503

Waterbody: Bayou Petit Caillou

Site Description: 60 yards downstream of Bayou Terrebonne confluence

Type of Equipment: Fathometer Hydrotac ManualInitial Bank: RDB LDB

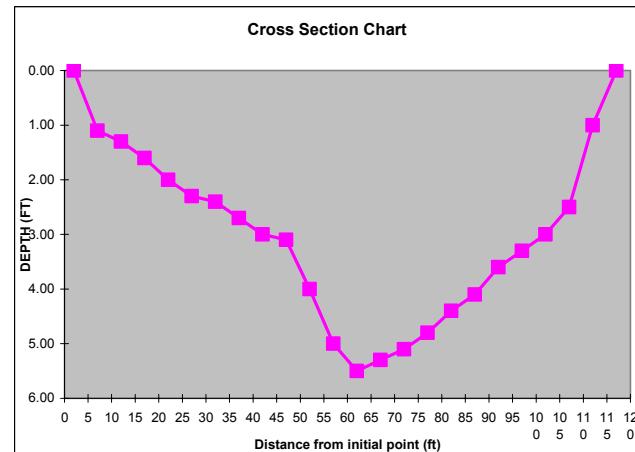
Tapedown:

Guage Height:

Date: 8/22/2003

WIDTH ¹ (ft):	115.00
AREA (ft ²):	355.50
AVG. DEPTH ² (ft):	3.09

Section	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	2.0	2.50	0.00	0.00	0.00%
2	7.0	5.00	1.10	5.50	1.55%
3	12.0	5.00	1.30	6.50	1.83%
4	17.0	5.00	1.60	8.00	2.25%
5	22.0	5.00	2.00	10.00	2.81%
6	27.0	5.00	2.30	11.50	3.23%
7	32.0	5.00	2.40	12.00	3.38%
8	37.0	5.00	2.70	13.50	3.80%
9	42.0	5.00	3.00	15.00	4.22%
10	47.0	5.00	3.10	15.50	4.36%
11	52.0	5.00	4.00	20.00	5.63%
12	57.0	5.00	5.00	25.00	7.03%
13	62.0	5.00	5.50	27.50	7.74%
14	67.0	5.00	5.30	26.50	7.45%
15	72.0	5.00	5.10	25.50	7.17%
16	77.0	5.00	4.80	24.00	6.75%
17	82.0	5.00	4.40	22.00	6.19%
18	87.0	5.00	4.10	20.50	5.77%
19	92.0	5.00	3.60	18.00	5.06%
20	97.0	5.00	3.30	16.50	4.64%
21	102.0	5.00	3.00	15.00	4.22%
22	107.0	5.00	2.50	12.50	3.52%
23	112.0	5.00	1.00	5.00	1.41%
24	117.0	2.50	0.00	0.00	0.00%
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	115.00		355.50	100.00%



Data Collection Crew

Chuck Fontenot, Griffith

Office Data Work

Griffith

Measurement made by:

Chuck Fontenot, Griffith

Data Inputed by / Date:

8/26/2003

Notetaker/Recorder:

Griffith

Data Input Checked by / Date:

Other:

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width*Depth for element

Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: PC-2 Subsegment: 120503

Waterbody: Bayou Petit Caillou

Site Description: Upstream of Hwy 24 Bridge

Type of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

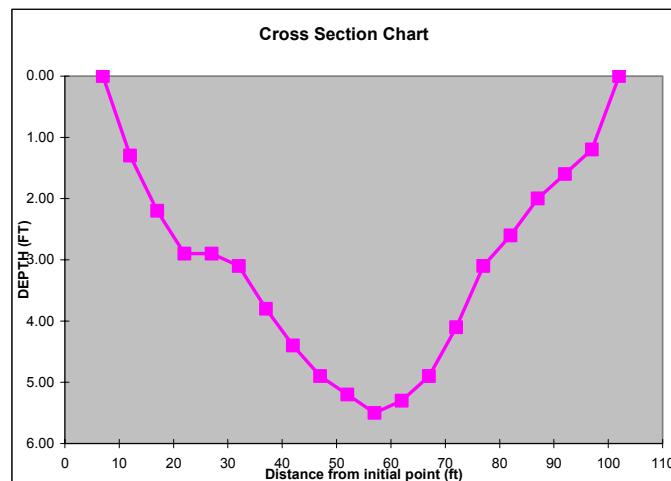
Tapedown:

Guage Height:

Date: 8/20/2003

WIDTH ¹ (ft):	95.00
AREA ² (ft ²):	305.00
AVG. DEPTH ³ (ft):	3.21

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	7.0	2.50	0.00	0.00	0.00%
2	12.0	5.00	1.30	6.50	2.13%
3	17.0	5.00	2.20	11.00	3.61%
4	22.0	5.00	2.90	14.50	4.75%
5	27.0	5.00	2.90	14.50	4.75%
6	32.0	5.00	3.10	15.50	5.08%
7	37.0	5.00	3.80	19.00	6.23%
8	42.0	5.00	4.40	22.00	7.21%
9	47.0	5.00	4.90	24.50	8.03%
10	52.0	5.00	5.20	26.00	8.52%
11	57.0	5.00	5.50	27.50	9.02%
12	62.0	5.00	5.30	26.50	8.69%
13	67.0	5.00	4.90	24.50	8.03%
14	72.0	5.00	4.10	20.50	6.72%
15	77.0	5.00	3.10	15.50	5.08%
16	82.0	5.00	2.60	13.00	4.26%
17	87.0	5.00	2.00	10.00	3.28%
18	92.0	5.00	1.60	8.00	2.62%
19	97.0	5.00	1.20	6.00	1.97%
20	102.0	2.50	0.00	0.00	0.00%
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
	Total	95.00		305.00	100.00%



Data Collection Crew	Chuck Fontenot, Griffith	Office Data \ Chuck Fontenot
Measurement made by:	Griffith	Data Inputted by / Date 37859.00
Notetaker/Recorder:	Chuck Fontenot	Data Input Checked by / Date:
Other:		

Note 1: WIDTH (ft) = sum of the width column

Note 2: AREA (sq.ft.) = sum of the area column

Note 3: AVG. DEPTH (ft) = area/width (using the values from this table)

Note 4: Width of element

Note 5: Area=Width*Depth for element

Note 6: Percent area = element area/total area x 100%

Note 7: Percent area should be less than 10% as per USGS standard.

Note 8: Blank fields are cleared from all calculations.

Note 9: The cross sections are taken at areas representative of the stream.

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: PC 3A Subsegment: 120503 Waterbody: Petite Caillou

Site Description: Petite Caillou above St. Louis Canal

Type of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

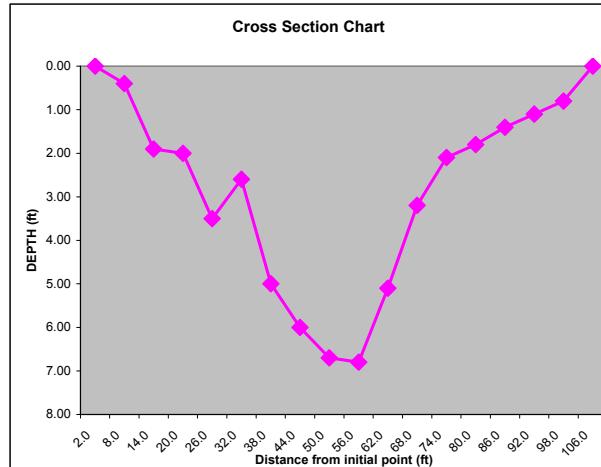
Tapedown:

Guage Height:

Date: 8/20/2003

WIDTH ¹ (ft):	104.00
AREA ² (ft ²):	303.20
AVG. DEPTH ³ (ft):	2.92

Station	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	2.0	0.00	0.00	0.00	0.00%
2	8.0	6.00	0.40	2.40	0.79%
3	14.0	6.00	1.90	11.40	3.76%
4	20.0	6.00	2.00	12.00	3.96%
5	26.0	6.00	3.50	21.00	6.93%
6	32.0	6.00	2.60	15.60	5.15%
7	38.0	6.00	5.00	30.00	9.89%
8	44.0	6.00	6.00	36.00	11.87%
9	50.0	6.00	6.70	40.20	13.26%
10	56.0	6.00	6.80	40.80	13.46%
11	62.0	6.00	5.10	30.60	10.09%
12	68.0	6.00	3.20	19.20	6.33%
13	74.0	6.00	2.10	12.60	4.16%
14	80.0	6.00	1.80	10.80	3.56%
15	86.0	6.00	1.40	8.40	2.77%
16	92.0	6.00	1.10	6.60	2.18%
17	98.0	7.00	0.80	5.60	1.85%
18	106.0	0.00	0.00	0.00	0.00%
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
	97.00		303.20	100.00%	



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEETSite Number: PC 6 Subsegment: 120503 Waterbody: Petite CaillouSite Description: Petite Caillou near Honey RoadType of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

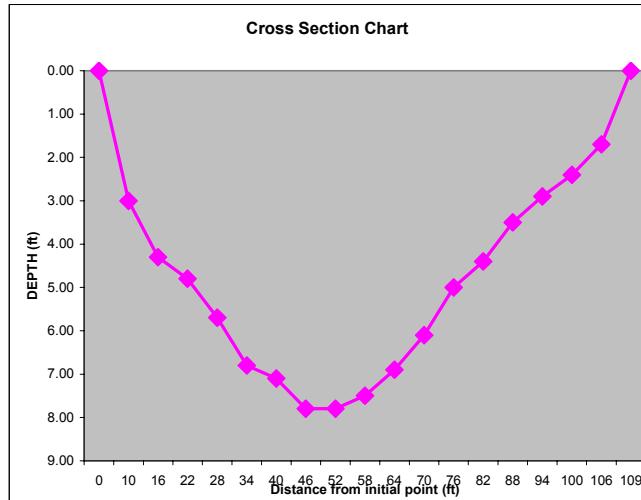
Tapedown:

Guage Height:

Date: 8/21/2003

Station	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	0.0	0.00	0.00	0.00	
2	10.0	8.00	3.00	24.00	4.53%
3	16.0	6.00	4.30	25.80	4.87%
4	22.0	6.00	4.80	28.80	5.44%
5	28.0	6.00	5.70	34.20	6.46%
6	34.0	6.00	6.80	40.80	7.70%
7	40.0	6.00	7.10	42.60	8.04%
8	46.0	6.00	7.80	46.80	8.84%
9	52.0	6.00	7.80	46.80	8.84%
10	58.0	6.00	7.50	45.00	8.50%
11	64.0	6.00	6.90	41.40	7.82%
12	70.0	6.00	6.10	36.60	6.91%
13	76.0	6.00	5.00	30.00	5.66%
14	82.0	6.00	4.40	26.40	4.98%
15	88.0	6.00	3.50	21.00	3.97%
16	94.0	6.00	2.90	17.40	3.29%
17	100.0	6.00	2.40	14.40	2.72%
18	106.0	4.47	1.70	7.60	1.44%
19	109.0	0.00	0.00	0.00	0.00%
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
	102.47		529.60	100.00%	

WIDTH ¹ (ft):	109.00
AREA ² (ft ²):	529.60
AVG. DEPTH ³ (ft):	4.86



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: PC 3 Subsegment: 120503

Waterbody: St. Louis Canal

Site Description: St. Louis Canal at confluence of Petite Caillou

Type of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

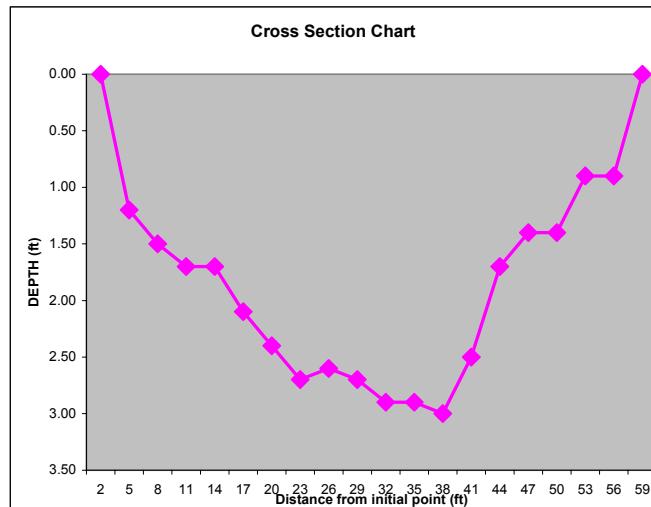
Tapedown:

Gauge Height:

Date: 8/19/2003

WIDTH ¹ (ft):	57.00
AREA ² (ft ²):	108.60
AVG. DEPTH ³ (ft):	1.91

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	2.0	0.00	0.00	0.00	0.00%
2	5.0	3.00	1.20	3.60	3.31%
3	8.0	3.00	1.50	4.50	4.14%
4	11.0	3.00	1.70	5.10	4.70%
5	14.0	3.00	1.70	5.10	4.70%
6	17.0	3.00	2.10	6.30	5.80%
7	20.0	3.00	2.40	7.20	6.63%
8	23.0	3.00	2.70	8.10	7.46%
9	26.0	3.00	2.60	7.80	7.18%
10	29.0	3.00	2.70	8.10	7.46%
11	32.0	3.00	2.90	8.70	8.01%
12	35.0	3.00	2.90	8.70	8.01%
13	38.0	3.00	3.00	9.00	8.29%
14	41.0	3.00	2.50	7.50	6.91%
15	44.0	3.00	1.70	5.10	4.70%
16	47.0	3.00	1.40	4.20	3.87%
17	50.0	3.00	1.40	4.20	3.87%
18	53.0	3.00	0.90	2.70	2.49%
19	56.0	3.00	0.90	2.70	2.49%
20	59.0	0.00	0.00	0.00	0.00%
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
	54.00		108.60	100.00%	



Petit Caillou 120503

Field Data Summary -- Discharges and Cross Sections

Site #	Width (ft)	Width (m)	Depth (ft)	Depth (m)	Flow (cfs)	Flow (cms)
1	115	35.052	3.09	0.941832		0
2	95	28.956	3.21	0.978408	16.21519	0.4592142
3A	104	31.6992	2.90	0.88392	24.8624	0.7041032
4	64.9	19.78152	3.41	1.039368	28.80443	0.8157413
5	93.1	28.37688	4.78	1.456944	28.80443	0.8157413
6	109	33.2232	4.90	1.49352		0

Bayou Petit Caillou 120503

Aquacalc Width and Depth Calcs

Site	Area	Width	Depth
3A	303.2	104	2.9
6	529.65	109	4.9
3	108.6	57	1.9

Petit Caillou 120503 Doppler Width and Depth Calculations

Site 4

	Site 4 (Width) (Feet)	Site 4 (Area) (Feet ²)	Site 4 (Depth) (Feet)	Site 4 (Depth) (Meters)	Site 4 (Width) (Feet)	Site 4 (Width) (Meters)
	62.05	203.47	3.414060092	1.040605516	64.9	19.78152
	67.35	231.21				
	63.45	219.39				
	66.75	232.22				
Sum	259.6	886.29				
Average	64.9	221.5725				

Site 5

	Site 4 (Width) (Feet)	Site 4 (Area) (Feet ²)	Site 5 (Depth) (Feet)	Site 5 (Depth) (Meters)	Site 5 (Width) (Feet)	Site 5 (Width) (Meters)
	91.07	430.6	4.777892318	1.456301579	93.126	28.3848048
	89.82	434.29				
	89.36	433.37				
	98.22	463.72				
	97.16	462.75				
Sum	465.63	2224.73				
Average	93.126	444.946				

Petit Caillou 120503 Flow Input Values (cms)		
Headwater	PC2	0.459214177
Incremental Flow	PC3A - PC2	0.244888991
St. Louis Canal	PC4 - PC3A	0.111638148

Headwater	PC2	0.459214177
Incremental Flow	PC3A - PC2	0.244888991
St. Louis Canal	PC4 - PC3A	0.111638148

Petit Caillou 120503 Drogue Calculations							
Site	Stream Location	Distance (ft)	Time (sec)	Velocity (f/s)	Area(ft*2)	Average Flow (cfs)	Average Flow (cms)
PC 2	mid stream	42	474	0.088607595	305	16.21518987	0.459214177
PC 3A	mid stream	41	300	0.1366666667	303.2	24.8624	0.704103168
PC 4	mid stream	65	300	0.2166666667	221.5725	28.804425	0.815741316
Average Flow = 0.6 * Velocity * Cross-Sectional Area							

Site	Stream Location	Distance (ft)	Time (sec)	Velocity (f/s)	Area(ft*2)	Average Flow (cfs)	Average Flow (cms)
PC 2	mid stream	42	474	0.088607595	305	16.21518987	0.459214177
PC 3A	mid stream	41	300	0.1366666667	303.2	24.8624	0.704103168
PC 4	mid stream	65	300	0.2166666667	221.5725	28.804425	0.815741316

Average Flow = 0.6 * Velocity * Cross-Sectional Area

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix C3 – Field Notes

Bayou Petit Caillou Survey Report

Bayou Petit Caillou (Subsegment 120503) is located in the Terrebonne Basin and is approximately 5 miles long. The survey started at Bayou Terrebonne and ended at Honey Lane below Klondyke Road Bridge. It was conducted on August 19 thru August 21, 2003. The majority of the land use along the bayou is municipal.

The Watershed Survey Group took water quality samples throughout the length of the bayou along with In-Situ readings. There was some measurable flow taken with the Acoustic Doppler and drogues. A time of travel study was conducted just below St. Louis Canal to Klondyke Road Bridge. Five continuous monitors were set out during the survey and out of the five, three were vented depth. GPS readings were taken prior too and during the survey along with Cross-sections. All field notes are included with this report as well as lab data. All cross-sectional sheets, water quality, continuous monitor data and log reports are available upon request.

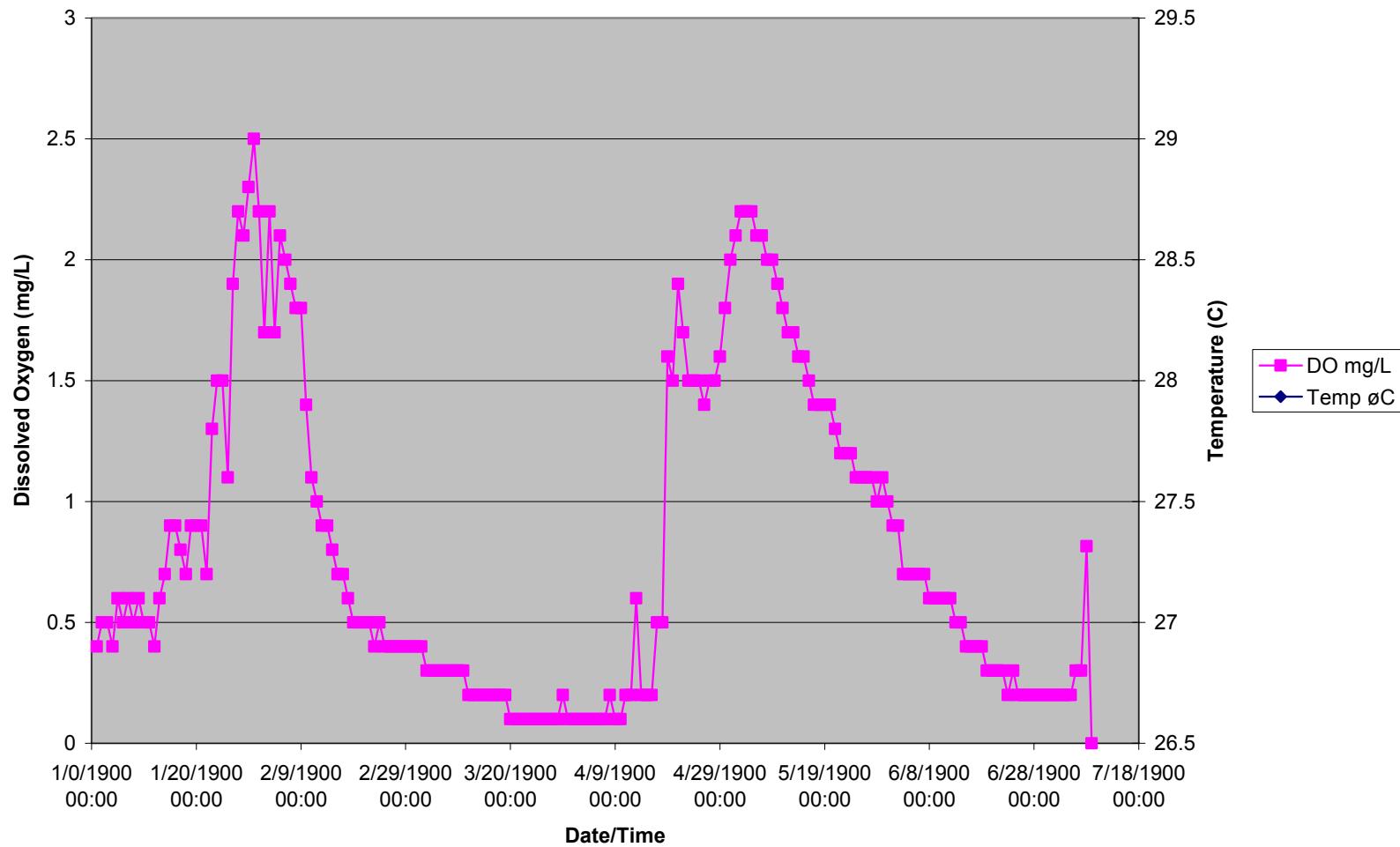
The Watershed Survey crew did encounter one problem while conducting the survey. During the Dye study there was a heavy rain, which occurred between Run 1 and Run 3. Besides that there were no other problems.

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix C4 – Continuous Monitoring

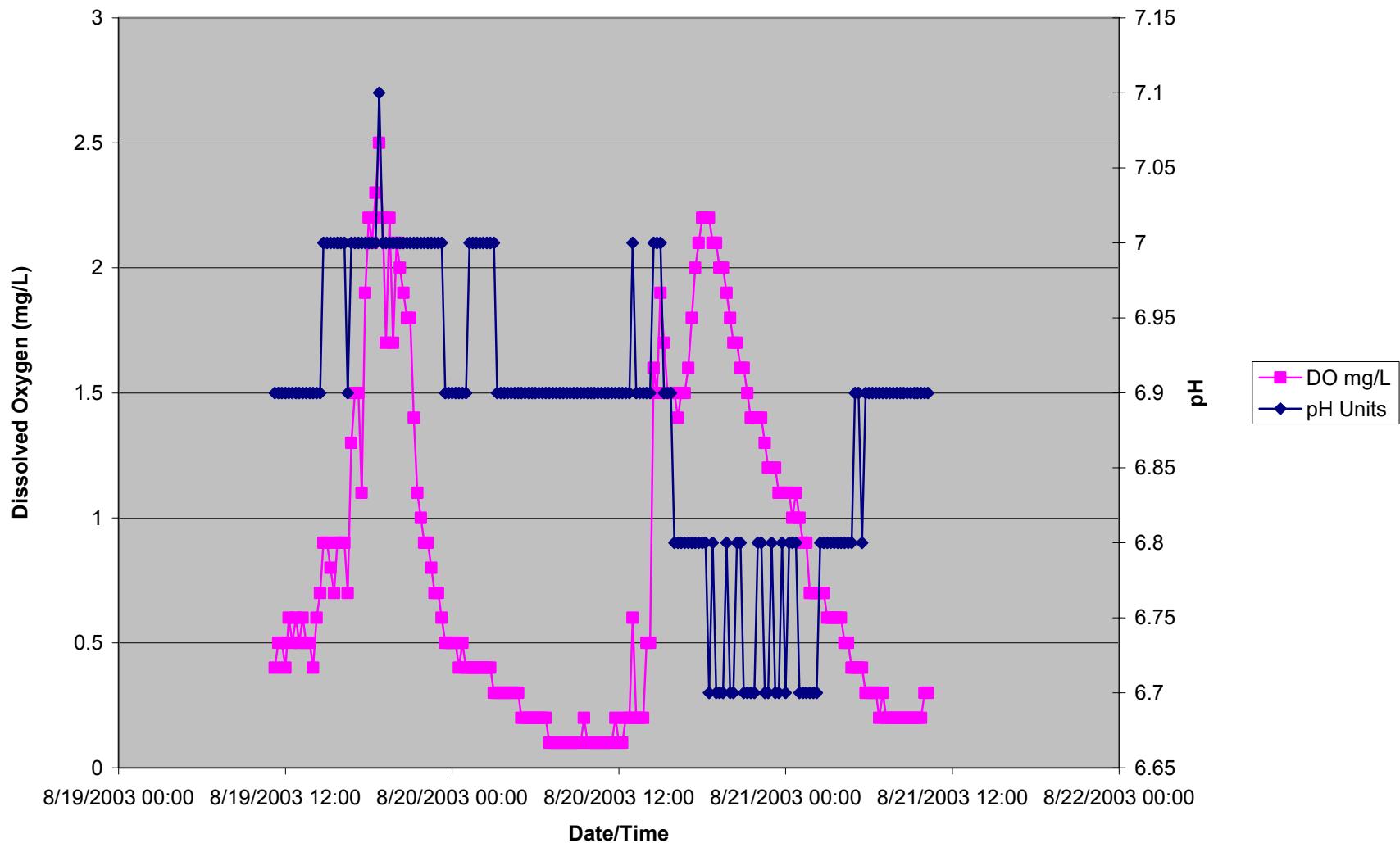
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC1: DO & Temp v. Date/Time



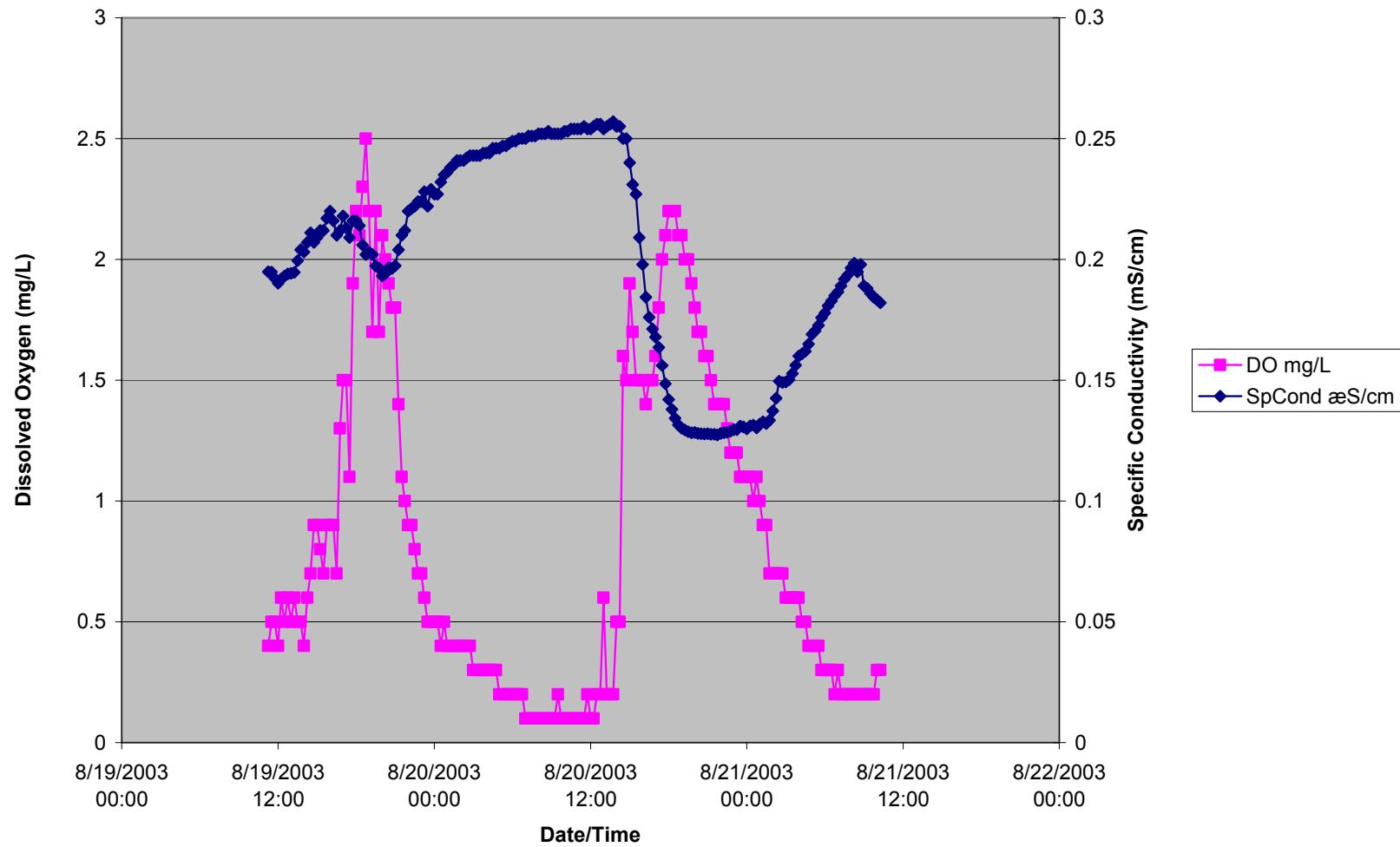
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC1: DO & pH v. Date/Time



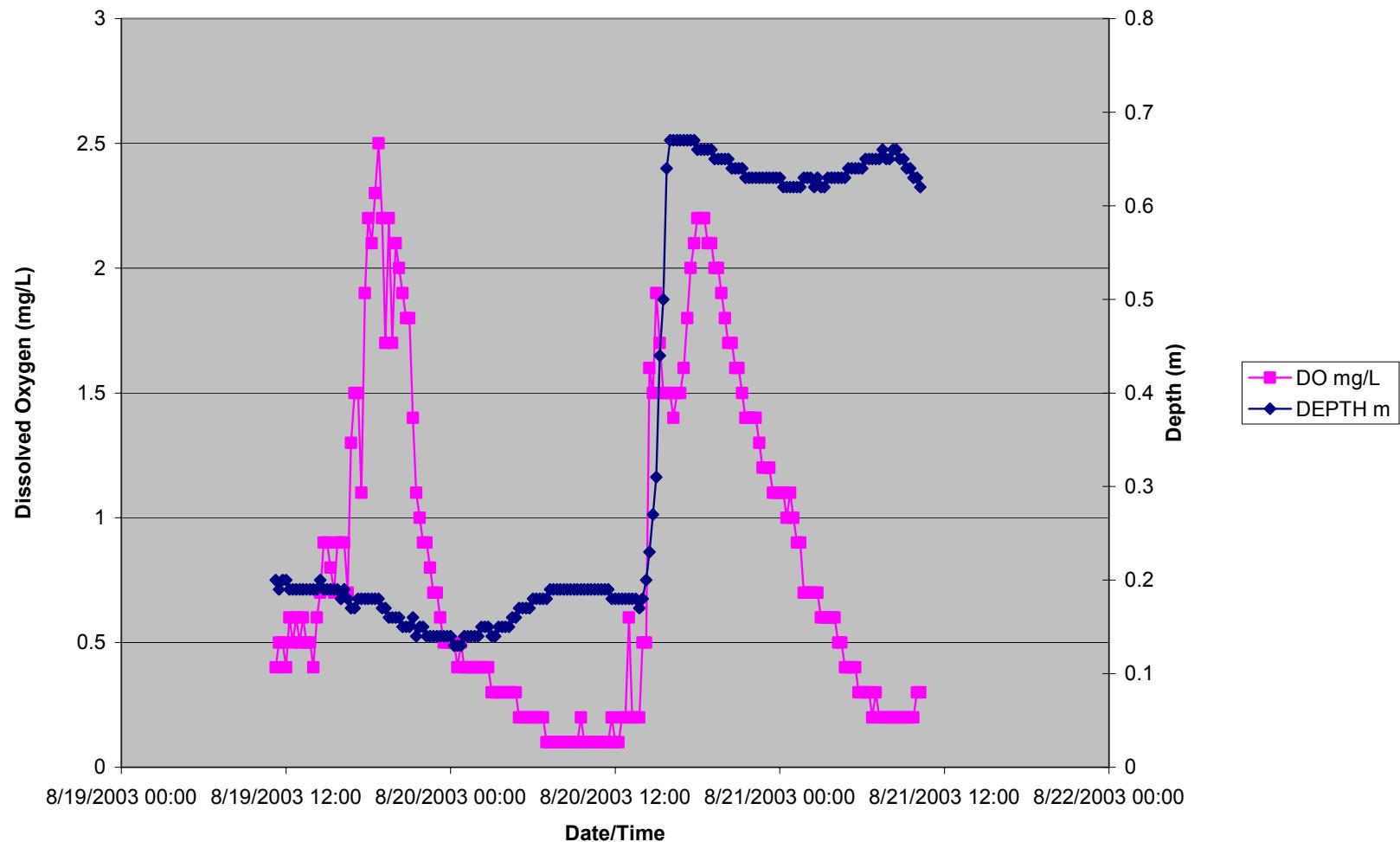
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC1: DO & SpCond v. Date/Time



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC1: DO & Depth v. Date/Time



PC 1 Continuous Monitoring Data

Date	Time	Date+Time	Temp	pH	SpCond	DEPTH	DO%	DO	VENTED DEPTH	SALINITY
MMDDYY	HHMM	MMDDYYYY HHMM	øC	Units	æS/cm	m	Sat	mg/L	True/False	ppt
8/19/2003	11:15	8/19/2003 11:15	27.3	6.9	0.1949	0.2	4.4	0.4	FALSE	0.1
8/19/2003	11:30	8/19/2003 11:30	27.5	6.9	0.1948	0.19	6.5	0.5	FALSE	0.1
8/19/2003	11:45	8/19/2003 11:45	27.5	6.9	0.1921	0.2	6.1	0.5	FALSE	0.1
8/19/2003	12:00	8/19/2003 12:00	27.4	6.9	0.1901	0.2	5.3	0.4	FALSE	0.1
8/19/2003	12:15	8/19/2003 12:15	27.5	6.9	0.1919	0.19	7.2	0.6	FALSE	0.1
8/19/2003	12:30	8/19/2003 12:30	27.5	6.9	0.1931	0.19	6.5	0.5	FALSE	0.1
8/19/2003	12:45	8/19/2003 12:45	27.5	6.9	0.194	0.19	7.5	0.6	FALSE	0.1
8/19/2003	13:00	8/19/2003 13:00	27.5	6.9	0.1942	0.19	5.7	0.5	FALSE	0.1
8/19/2003	13:15	8/19/2003 13:15	27.8	6.9	0.1946	0.19	8	0.6	FALSE	0.1
8/19/2003	13:30	8/19/2003 13:30	27.6	6.9	0.1995	0.19	6.4	0.5	FALSE	0.1
8/19/2003	13:45	8/19/2003 13:45	27.8	6.9	0.204	0.19	6	0.5	FALSE	0.1
8/19/2003	14:00	8/19/2003 14:00	27.8	6.9	0.203	0.19	5	0.4	FALSE	0.1
8/19/2003	14:15	8/19/2003 14:15	28.2	6.9	0.207	0.19	7.8	0.6	FALSE	0.1
8/19/2003	14:30	8/19/2003 14:30	28.3	6.9	0.211	0.2	8.6	0.7	FALSE	0.1
8/19/2003	14:45	8/19/2003 14:45	28.3	7	0.207	0.19	11.5	0.9	FALSE	0.1
8/19/2003	15:00	8/19/2003 15:00	28.5	7	0.209	0.19	11.8	0.9	FALSE	0.1
8/19/2003	15:15	8/19/2003 15:15	28.3	7	0.212	0.19	9.9	0.8	FALSE	0.1
8/19/2003	15:30	8/19/2003 15:30	28.3	7	0.212	0.19	9.2	0.7	FALSE	0.1
8/19/2003	15:45	8/19/2003 15:45	28.6	7	0.217	0.19	12.1	0.9	FALSE	0.1
8/19/2003	16:00	8/19/2003 16:00	28.6	7	0.22	0.18	11.7	0.9	FALSE	0.1
8/19/2003	16:15	8/19/2003 16:15	28.6	7	0.216	0.19	11.5	0.9	FALSE	0.1
8/19/2003	16:30	8/19/2003 16:30	28.5	6.9	0.21	0.18	8.3	0.7	FALSE	0.1
8/19/2003	16:45	8/19/2003 16:45	28.9	7	0.212	0.17	16.2	1.3	FALSE	0.1
8/19/2003	17:00	8/19/2003 17:00	28.8	7	0.218	0.17	18.9	1.5	FALSE	0.1
8/19/2003	17:15	8/19/2003 17:15	28.9	7	0.213	0.18	19.3	1.5	FALSE	0.1
8/19/2003	17:30	8/19/2003 17:30	28.6	7	0.209	0.18	14.8	1.1	FALSE	0.1
8/19/2003	17:45	8/19/2003 17:45	29	7	0.216	0.18	24.9	1.9	FALSE	0.1
8/19/2003	18:00	8/19/2003 18:00	28.9	7	0.216	0.18	28.7	2.2	FALSE	0.1
8/19/2003	18:15	8/19/2003 18:15	29	7	0.214	0.18	26.9	2.1	FALSE	0.1
8/19/2003	18:30	8/19/2003 18:30	28.9	7	0.206	0.18	30	2.3	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/19/2003	18:45	8/19/2003 18:45	28.8	7.1	0.202	0.18	32.4	2.5	FALSE	0.1
8/19/2003	19:00	8/19/2003 19:00	28.8	7	0.203	0.17	28	2.2	FALSE	0.1
8/19/2003	19:15	8/19/2003 19:15	28.6	7	0.202	0.17	21.5	1.7	FALSE	0.1
8/19/2003	19:30	8/19/2003 19:30	28.6	7	0.1973	0.16	28.1	2.2	FALSE	0.1
8/19/2003	19:45	8/19/2003 19:45	28.5	7	0.1964	0.16	21.9	1.7	FALSE	0.1
8/19/2003	20:00	8/19/2003 20:00	28.6	7	0.1932	0.16	26.7	2.1	FALSE	0.1
8/19/2003	20:15	8/19/2003 20:15	28.6	7	0.1941	0.16	25.8	2	FALSE	0.1
8/19/2003	20:30	8/19/2003 20:30	28.5	7	0.1965	0.15	23.9	1.9	FALSE	0.1
8/19/2003	20:45	8/19/2003 20:45	28.5	7	0.1962	0.15	22.8	1.8	FALSE	0.1
8/19/2003	21:00	8/19/2003 21:00	28.4	7	0.1974	0.15	22.7	1.8	FALSE	0.1
8/19/2003	21:15	8/19/2003 21:15	28.4	7	0.204	0.16	18.1	1.4	FALSE	0.1
8/19/2003	21:30	8/19/2003 21:30	28.4	7	0.21	0.14	14.6	1.1	FALSE	0.1
8/19/2003	21:45	8/19/2003 21:45	28.4	7	0.212	0.15	13.3	1	FALSE	0.1
8/19/2003	22:00	8/19/2003 22:00	28.4	7	0.22	0.15	11.7	0.9	FALSE	0.1
8/19/2003	22:15	8/19/2003 22:15	28.4	7	0.221	0.14	11.3	0.9	FALSE	0.1
8/19/2003	22:30	8/19/2003 22:30	28.4	7	0.222	0.14	10.5	0.8	FALSE	0.1
8/19/2003	22:45	8/19/2003 22:45	28.4	7	0.224	0.14	9.4	0.7	FALSE	0.1
8/19/2003	23:00	8/19/2003 23:00	28.4	7	0.224	0.14	9.1	0.7	FALSE	0.1
8/19/2003	23:15	8/19/2003 23:15	28.4	7	0.228	0.14	7.7	0.6	FALSE	0.1
8/19/2003	23:30	8/19/2003 23:30	28.3	6.9	0.222	0.14	6.7	0.5	FALSE	0.1
8/19/2003	23:45	8/19/2003 23:45	28.4	6.9	0.229	0.14	6.9	0.5	FALSE	0.1
8/20/2003	0:00	8/20/2003 00:00	28.4	6.9	0.227	0.14	6.1	0.5	FALSE	0.1
8/20/2003	0:15	8/20/2003 00:15	28.3	6.9	0.227	0.13	6.1	0.5	FALSE	0.1
8/20/2003	0:30	8/20/2003 00:30	28.3	6.9	0.232	0.13	5.5	0.4	FALSE	0.1
8/20/2003	0:45	8/20/2003 00:45	28.3	6.9	0.235	0.13	5.8	0.5	FALSE	0.1
8/20/2003	1:00	8/20/2003 01:00	28.3	6.9	0.236	0.14	5.1	0.4	FALSE	0.1
8/20/2003	1:15	8/20/2003 01:15	28.3	7	0.238	0.14	5.2	0.4	FALSE	0.1
8/20/2003	1:30	8/20/2003 01:30	28.3	7	0.239	0.14	5.1	0.4	FALSE	0.1
8/20/2003	1:45	8/20/2003 01:45	28.3	7	0.241	0.14	4.9	0.4	FALSE	0.1
8/20/2003	2:00	8/20/2003 02:00	28.3	7	0.241	0.14	5.4	0.4	FALSE	0.1
8/20/2003	2:15	8/20/2003 02:15	28.2	7	0.241	0.15	5.2	0.4	FALSE	0.1
8/20/2003	2:30	8/20/2003 02:30	28.2	7	0.242	0.15	5.1	0.4	FALSE	0.1
8/20/2003	2:45	8/20/2003 02:45	28.2	7	0.243	0.15	5.1	0.4	FALSE	0.1
8/20/2003	3:00	8/20/2003 03:00	28.2	7	0.243	0.14	4.4	0.3	FALSE	0.1
8/20/2003	3:15	8/20/2003 03:15	28.2	6.9	0.243	0.14	3.9	0.3	FALSE	0.1
8/20/2003	3:30	8/20/2003 03:30	28.1	6.9	0.243	0.15	3.9	0.3	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	3:45	8/20/2003 03:45	28.1	6.9	0.244	0.15	4.1	0.3	FALSE	0.1
8/20/2003	4:00	8/20/2003 04:00	28.1	6.9	0.244	0.15	3.4	0.3	FALSE	0.1
8/20/2003	4:15	8/20/2003 04:15	28	6.9	0.244	0.15	3.4	0.3	FALSE	0.1
8/20/2003	4:30	8/20/2003 04:30	28	6.9	0.246	0.16	3.6	0.3	FALSE	0.1
8/20/2003	4:45	8/20/2003 04:45	28	6.9	0.246	0.16	3.2	0.3	FALSE	0.1
8/20/2003	5:00	8/20/2003 05:00	28	6.9	0.246	0.17	2.8	0.2	FALSE	0.1
8/20/2003	5:15	8/20/2003 05:15	28	6.9	0.247	0.17	2.7	0.2	FALSE	0.1
8/20/2003	5:30	8/20/2003 05:30	27.9	6.9	0.247	0.17	2.6	0.2	FALSE	0.1
8/20/2003	5:45	8/20/2003 05:45	27.9	6.9	0.248	0.17	2.5	0.2	FALSE	0.1
8/20/2003	6:00	8/20/2003 06:00	27.9	6.9	0.249	0.18	2	0.2	FALSE	0.1
8/20/2003	6:15	8/20/2003 06:15	27.9	6.9	0.249	0.18	2.4	0.2	FALSE	0.1
8/20/2003	6:30	8/20/2003 06:30	27.9	6.9	0.25	0.18	2.4	0.2	FALSE	0.1
8/20/2003	6:45	8/20/2003 06:45	27.9	6.9	0.25	0.18	2.1	0.2	FALSE	0.1
8/20/2003	7:00	8/20/2003 07:00	27.8	6.9	0.25	0.18	1.7	0.1	FALSE	0.1
8/20/2003	7:15	8/20/2003 07:15	27.8	6.9	0.251	0.19	1.8	0.1	FALSE	0.1
8/20/2003	7:30	8/20/2003 07:30	27.8	6.9	0.251	0.19	1.7	0.1	FALSE	0.1
8/20/2003	7:45	8/20/2003 07:45	27.8	6.9	0.251	0.19	1.7	0.1	FALSE	0.1
8/20/2003	8:00	8/20/2003 08:00	27.8	6.9	0.252	0.19	1.7	0.1	FALSE	0.1
8/20/2003	8:15	8/20/2003 08:15	27.8	6.9	0.252	0.19	1.6	0.1	FALSE	0.1
8/20/2003	8:30	8/20/2003 08:30	27.8	6.9	0.252	0.19	1.8	0.1	FALSE	0.1
8/20/2003	8:45	8/20/2003 08:45	27.8	6.9	0.253	0.19	1.7	0.1	FALSE	0.1
8/20/2003	9:00	8/20/2003 09:00	27.8	6.9	0.252	0.19	1.3	0.1	FALSE	0.1
8/20/2003	9:15	8/20/2003 09:15	27.9	6.9	0.252	0.19	1.8	0.1	FALSE	0.1
8/20/2003	9:30	8/20/2003 09:30	27.9	6.9	0.252	0.19	2.2	0.2	FALSE	0.1
8/20/2003	9:45	8/20/2003 09:45	27.8	6.9	0.252	0.19	1	0.1	FALSE	0.1
8/20/2003	10:00	8/20/2003 10:00	27.8	6.9	0.253	0.19	0.8	0.1	FALSE	0.1
8/20/2003	10:15	8/20/2003 10:15	27.9	6.9	0.253	0.19	0.9	0.1	FALSE	0.1
8/20/2003	10:30	8/20/2003 10:30	27.9	6.9	0.254	0.19	0.8	0.1	FALSE	0.1
8/20/2003	10:45	8/20/2003 10:45	27.9	6.9	0.254	0.19	0.7	0.1	FALSE	0.1
8/20/2003	11:00	8/20/2003 11:00	28	6.9	0.254	0.19	1.2	0.1	FALSE	0.1
8/20/2003	11:15	8/20/2003 11:15	28	6.9	0.254	0.19	1.2	0.1	FALSE	0.1
8/20/2003	11:30	8/20/2003 11:30	28	6.9	0.255	0.19	1.3	0.1	FALSE	0.1
8/20/2003	11:45	8/20/2003 11:45	28.1	6.9	0.254	0.18	2.1	0.2	FALSE	0.1
8/20/2003	12:00	8/20/2003 12:00	28.1	6.9	0.254	0.18	1.7	0.1	FALSE	0.1
8/20/2003	12:15	8/20/2003 12:15	28.2	6.9	0.255	0.18	1.8	0.1	FALSE	0.1
8/20/2003	12:30	8/20/2003 12:30	28.2	6.9	0.256	0.18	2	0.2	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	12:45	8/20/2003 12:45	28.3	6.9	0.256	0.18	2.6	0.2	FALSE	0.1
8/20/2003	13:00	8/20/2003 13:00	28.4	7	0.254	0.18	7.9	0.6	FALSE	0.1
8/20/2003	13:15	8/20/2003 13:15	28.3	6.9	0.255	0.18	2.2	0.2	FALSE	0.1
8/20/2003	13:30	8/20/2003 13:30	28.4	6.9	0.256	0.18	2.4	0.2	FALSE	0.1
8/20/2003	13:45	8/20/2003 13:45	28.5	6.9	0.257	0.17	2.8	0.2	FALSE	0.1
8/20/2003	14:00	8/20/2003 14:00	28.6	6.9	0.255	0.18	5.9	0.5	FALSE	0.1
8/20/2003	14:15	8/20/2003 14:15	28.2	6.9	0.255	0.2	6.5	0.5	FALSE	0.1
8/20/2003	14:30	8/20/2003 14:30	28.5	7	0.25	0.23	20.6	1.6	FALSE	0.1
8/20/2003	14:45	8/20/2003 14:45	28.5	7	0.25	0.27	19.4	1.5	FALSE	0.1
8/20/2003	15:00	8/20/2003 15:00	28.6	7	0.24	0.31	24	1.9	FALSE	0.1
8/20/2003	15:15	8/20/2003 15:15	28.6	6.9	0.231	0.44	21.9	1.7	FALSE	0.1
8/20/2003	15:30	8/20/2003 15:30	28.7	6.9	0.227	0.5	19.3	1.5	FALSE	0.1
8/20/2003	15:45	8/20/2003 15:45	28.6	6.9	0.209	0.64	19.9	1.5	FALSE	0.1
8/20/2003	16:00	8/20/2003 16:00	28.4	6.8	0.1979	0.67	19.6	1.5	FALSE	0.1
8/20/2003	16:15	8/20/2003 16:15	28.3	6.8	0.1843	0.67	18.4	1.4	FALSE	0.1
8/20/2003	16:30	8/20/2003 16:30	28.2	6.8	0.176	0.67	19.7	1.5	FALSE	0.1
8/20/2003	16:45	8/20/2003 16:45	28.1	6.8	0.1712	0.67	19.5	1.5	FALSE	0.1
8/20/2003	17:00	8/20/2003 17:00	28	6.8	0.1679	0.67	20.7	1.6	FALSE	0.1
8/20/2003	17:15	8/20/2003 17:15	28	6.8	0.1635	0.67	22.7	1.8	FALSE	0.1
8/20/2003	17:30	8/20/2003 17:30	27.9	6.8	0.1561	0.67	25.3	2	FALSE	0.1
8/20/2003	17:45	8/20/2003 17:45	27.7	6.8	0.1485	0.67	26.9	2.1	FALSE	0.1
8/20/2003	18:00	8/20/2003 18:00	27.6	6.8	0.142	0.66	27.8	2.2	FALSE	0.1
8/20/2003	18:15	8/20/2003 18:15	27.6	6.8	0.1379	0.66	28.2	2.2	FALSE	0.1
8/20/2003	18:30	8/20/2003 18:30	27.5	6.7	0.1342	0.66	28	2.2	FALSE	0.1
8/20/2003	18:45	8/20/2003 18:45	27.5	6.8	0.1315	0.66	26.9	2.1	FALSE	0.1
8/20/2003	19:00	8/20/2003 19:00	27.4	6.7	0.1301	0.66	26.3	2.1	FALSE	0.1
8/20/2003	19:15	8/20/2003 19:15	27.4	6.7	0.1294	0.65	25.4	2	FALSE	0.1
8/20/2003	19:30	8/20/2003 19:30	27.4	6.7	0.1287	0.65	24.8	2	FALSE	0.1
8/20/2003	19:45	8/20/2003 19:45	27.3	6.8	0.1283	0.65	23.9	1.9	FALSE	0.1
8/20/2003	20:00	8/20/2003 20:00	27.3	6.7	0.1284	0.65	22.9	1.8	FALSE	0.1
8/20/2003	20:15	8/20/2003 20:15	27.3	6.7	0.1279	0.65	21.9	1.7	FALSE	0.1
8/20/2003	20:30	8/20/2003 20:30	27.2	6.8	0.1278	0.64	21	1.7	FALSE	0.1
8/20/2003	20:45	8/20/2003 20:45	27.2	6.8	0.1277	0.64	20	1.6	FALSE	0.1
8/20/2003	21:00	8/20/2003 21:00	27.2	6.7	0.1278	0.64	19.7	1.6	FALSE	0.1
8/20/2003	21:15	8/20/2003 21:15	27.2	6.7	0.1276	0.64	19	1.5	FALSE	0.1
8/20/2003	21:30	8/20/2003 21:30	27.1	6.7	0.1276	0.63	18	1.4	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	21:45	8/20/2003 21:45	27.1	6.7	0.1273	0.63	17.8	1.4	FALSE	0.1
8/20/2003	22:00	8/20/2003 22:00	27.1	6.8	0.1279	0.63	17.2	1.4	FALSE	0.1
8/20/2003	22:15	8/20/2003 22:15	27.1	6.8	0.1283	0.63	16.9	1.4	FALSE	0.1
8/20/2003	22:30	8/20/2003 22:30	27	6.7	0.1285	0.63	16.4	1.3	FALSE	0.1
8/20/2003	22:45	8/20/2003 22:45	27	6.7	0.1289	0.63	15.5	1.2	FALSE	0.1
8/20/2003	23:00	8/20/2003 23:00	27	6.8	0.1295	0.63	15	1.2	FALSE	0.1
8/20/2003	23:15	8/20/2003 23:15	27	6.7	0.1295	0.63	14.5	1.2	FALSE	0.1
8/20/2003	23:30	8/20/2003 23:30	27	6.7	0.131	0.63	14.3	1.1	FALSE	0.1
8/20/2003	23:45	8/20/2003 23:45	27	6.8	0.1307	0.63	14.4	1.1	FALSE	0.1
8/21/2003	0:00	8/21/2003 00:00	27	6.7	0.1298	0.63	13.3	1.1	FALSE	0.1
8/21/2003	0:15	8/21/2003 00:15	26.9	6.8	0.1311	0.62	13.3	1.1	FALSE	0.1
8/21/2003	0:30	8/21/2003 00:30	26.9	6.8	0.1314	0.62	12.9	1	FALSE	0.1
8/21/2003	0:45	8/21/2003 00:45	26.9	6.8	0.1303	0.62	13.3	1.1	FALSE	0.1
8/21/2003	1:00	8/21/2003 01:00	26.9	6.7	0.1318	0.62	12.6	1	FALSE	0.1
8/21/2003	1:15	8/21/2003 01:15	26.8	6.7	0.1328	0.62	11.7	0.9	FALSE	0.1
8/21/2003	1:30	8/21/2003 01:30	26.8	6.7	0.132	0.62	11.2	0.9	FALSE	0.1
8/21/2003	1:45	8/21/2003 01:45	26.8	6.7	0.1334	0.63	8.7	0.7	FALSE	0.1
8/21/2003	2:00	8/21/2003 02:00	26.8	6.7	0.1373	0.63	8.8	0.7	FALSE	0.1
8/21/2003	2:15	8/21/2003 02:15	26.7	6.7	0.1425	0.63	8.4	0.7	FALSE	0.1
8/21/2003	2:30	8/21/2003 02:30	26.7	6.8	0.1496	0.62	9	0.7	FALSE	0.1
8/21/2003	2:45	8/21/2003 02:45	26.7	6.8	0.1491	0.63	8.7	0.7	FALSE	0.1
8/21/2003	3:00	8/21/2003 03:00	26.7	6.8	0.1493	0.62	7.9	0.6	FALSE	0.1
8/21/2003	3:15	8/21/2003 03:15	26.7	6.8	0.1502	0.62	7.9	0.6	FALSE	0.1
8/21/2003	3:30	8/21/2003 03:30	26.7	6.8	0.1527	0.63	7.7	0.6	FALSE	0.1
8/21/2003	3:45	8/21/2003 03:45	26.7	6.8	0.1562	0.63	6.9	0.6	FALSE	0.1
8/21/2003	4:00	8/21/2003 04:00	26.7	6.8	0.16	0.63	7	0.6	FALSE	0.1
8/21/2003	4:15	8/21/2003 04:15	26.7	6.8	0.1609	0.63	6.4	0.5	FALSE	0.1
8/21/2003	4:30	8/21/2003 04:30	26.7	6.8	0.162	0.63	5.9	0.5	FALSE	0.1
8/21/2003	4:45	8/21/2003 04:45	26.7	6.8	0.1649	0.63	5.3	0.4	FALSE	0.1
8/21/2003	5:00	8/21/2003 05:00	26.7	6.9	0.169	0.64	5.5	0.4	FALSE	0.1
8/21/2003	5:15	8/21/2003 05:15	26.7	6.9	0.1705	0.64	4.7	0.4	FALSE	0.1
8/21/2003	5:30	8/21/2003 05:30	26.7	6.8	0.1727	0.64	4.7	0.4	FALSE	0.1
8/21/2003	5:45	8/21/2003 05:45	26.7	6.9	0.1758	0.64	4.1	0.3	FALSE	0.1
8/21/2003	6:00	8/21/2003 06:00	26.8	6.9	0.1778	0.64	4.1	0.3	FALSE	0.1
8/21/2003	6:15	8/21/2003 06:15	26.8	6.9	0.1808	0.65	3.5	0.3	FALSE	0.1
8/21/2003	6:30	8/21/2003 06:30	26.8	6.9	0.1828	0.65	3.3	0.3	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

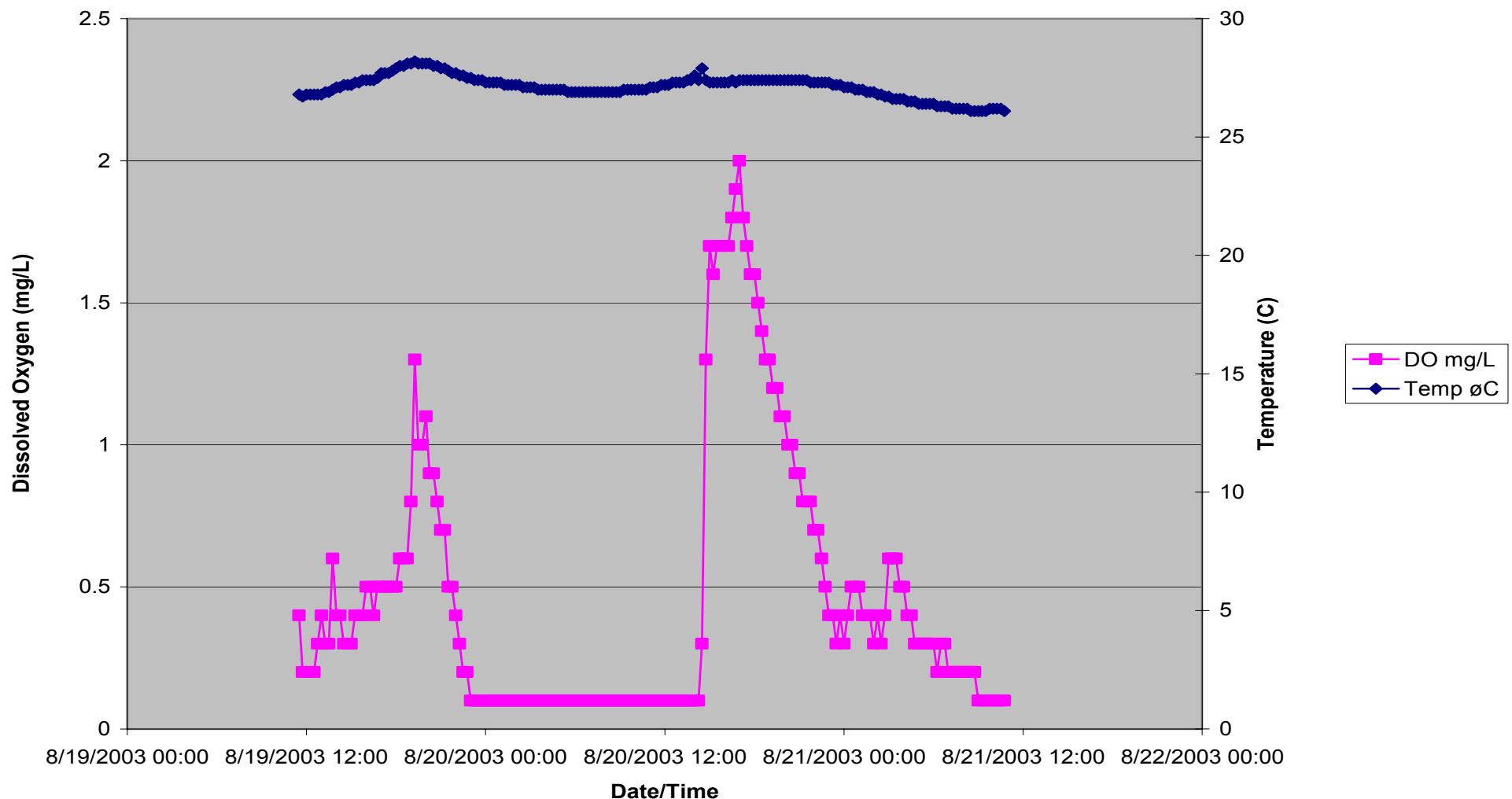
Revised: December 17, 2004

Revised: January 7, 2005

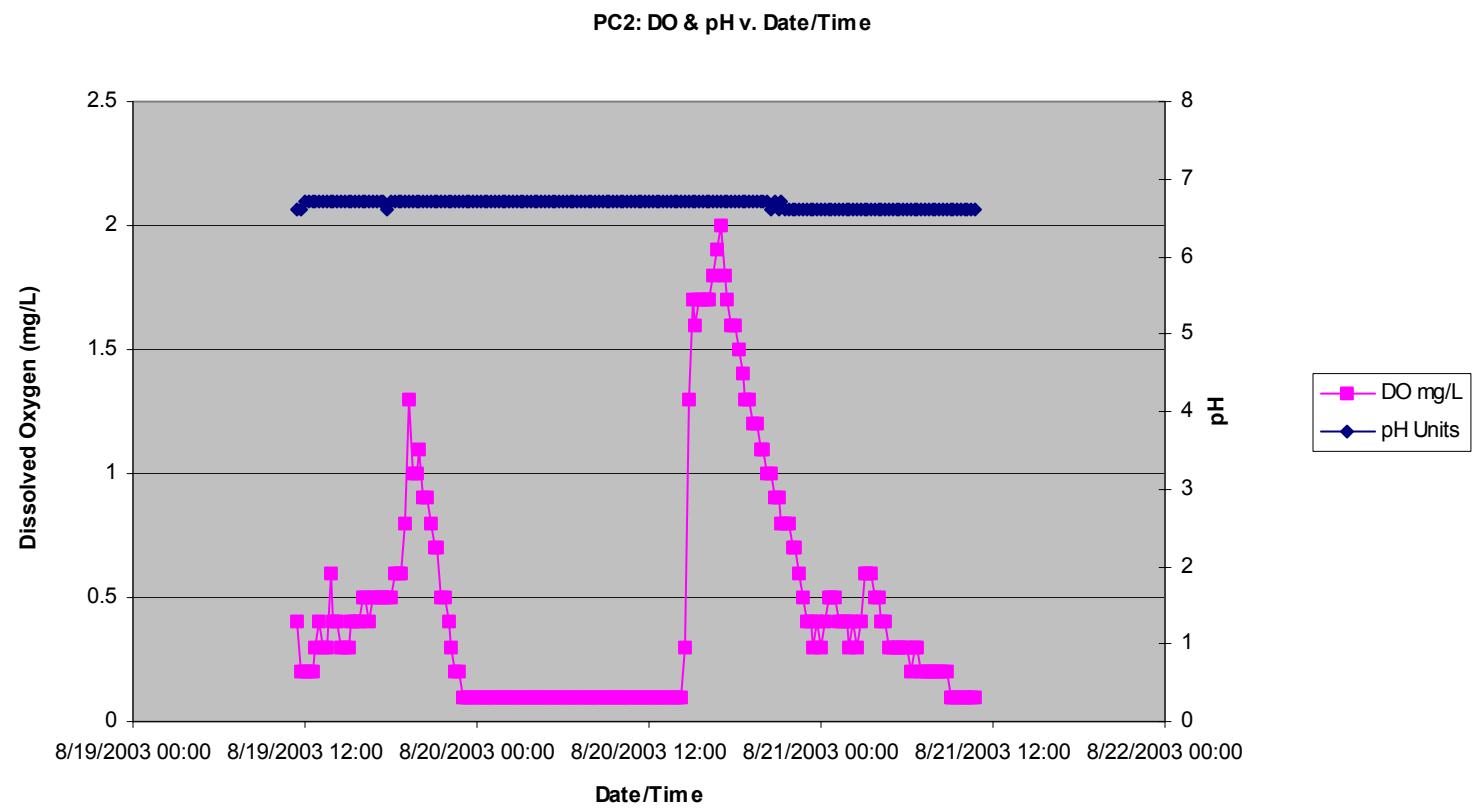
8/21/2003	6:45	8/21/2003 06:45	26.8	6.9	0.185	0.65	2.9	0.2	FALSE	0.1
8/21/2003	7:00	8/21/2003 07:00	26.8	6.9	0.1866	0.65	3.1	0.3	FALSE	0.1
8/21/2003	7:15	8/21/2003 07:15	26.9	6.9	0.1891	0.65	2.6	0.2	FALSE	0.1
8/21/2003	7:30	8/21/2003 07:30	26.9	6.9	0.1918	0.66	2.2	0.2	FALSE	0.1
8/21/2003	7:45	8/21/2003 07:45	26.9	6.9	0.1935	0.65	2.6	0.2	FALSE	0.1
8/21/2003	8:00	8/21/2003 08:00	26.9	6.9	0.1964	0.65	2.5	0.2	FALSE	0.1
8/21/2003	8:15	8/21/2003 08:15	26.9	6.9	0.1984	0.66	2.3	0.2	FALSE	0.1
8/21/2003	8:30	8/21/2003 08:30	26.9	6.9	0.1949	0.66	1.9	0.2	FALSE	0.1
8/21/2003	8:45	8/21/2003 08:45	26.9	6.9	0.1979	0.65	2.3	0.2	FALSE	0.1
8/21/2003	9:00	8/21/2003 09:00	26.8	6.9	0.1891	0.65	3	0.2	FALSE	0.1
8/21/2003	9:15	8/21/2003 09:15	26.8	6.9	0.188	0.64	2.5	0.2	FALSE	0.1
8/21/2003	9:30	8/21/2003 09:30	26.7	6.9	0.1859	0.64	2.8	0.2	FALSE	0.1
8/21/2003	9:45	8/21/2003 09:45	26.7	6.9	0.1843	0.63	2.6	0.2	FALSE	0.1
8/21/2003	10:00	8/21/2003 10:00	26.7	6.9	0.1833	0.63	3.1	0.3	FALSE	0.1
8/21/2003	10:15	8/21/2003 10:15	26.8	6.9	0.182	0.62	3.4	0.3	FALSE	0.1
Site 1 Average			27.76	6.89	0.20002	0.3626	10.365	0.815		0.1
			Temp	pH	Sp Cond	Depth	DO Sat	DO		Salinity

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

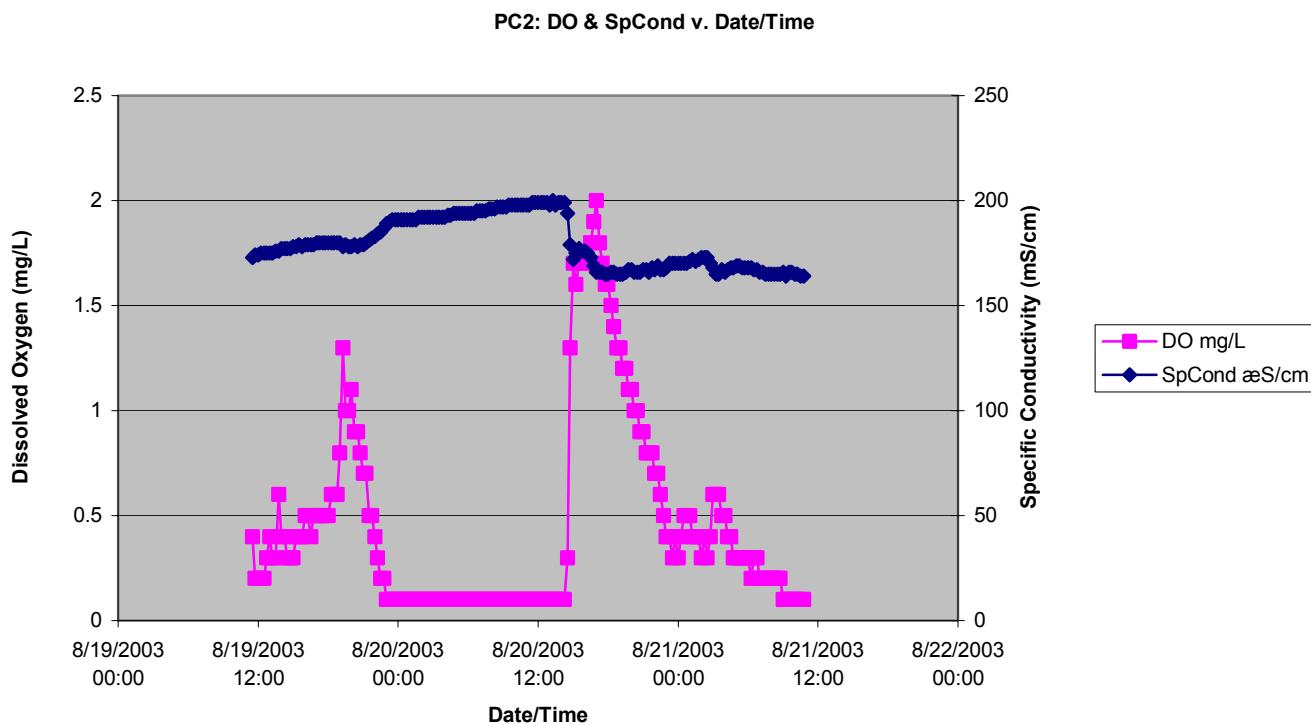
PC2: DO & Temp v. Date/Time



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Date MMDDYY	Time HHMM	Date+Time MMDDYYYY HHMM	Temp °C	pH Units	SpCond µS/cm	DO% Sat	DO mg/L	VENTED DEPTH True/False	SALINITY ppt
8/19/2003	11:30	8/19/2003 11:30	26.8	6.6	173	4.5	0.4	FALSE	0.1
8/19/2003	11:45	8/19/2003 11:45	26.7	6.6	174	3	0.2	FALSE	0.1
8/19/2003	12:00	8/19/2003 12:00	26.8	6.7	174	2.5	0.2	FALSE	0.1
8/19/2003	12:15	8/19/2003 12:15	26.8	6.7	175	2.1	0.2	FALSE	0.1
8/19/2003	12:30	8/19/2003 12:30	26.8	6.7	175	2.9	0.2	FALSE	0.1
8/19/2003	12:45	8/19/2003 12:45	26.8	6.7	175	3.4	0.3	FALSE	0.1
8/19/2003	13:00	8/19/2003 13:00	26.8	6.7	175	4.8	0.4	FALSE	0.1
8/19/2003	13:15	8/19/2003 13:15	26.9	6.7	175	3.5	0.3	FALSE	0.1
8/19/2003	13:30	8/19/2003 13:30	26.9	6.7	176	4.3	0.3	FALSE	0.1
8/19/2003	13:45	8/19/2003 13:45	27	6.7	176	7.5	0.6	FALSE	0.1
8/19/2003	14:00	8/19/2003 14:00	27.1	6.7	177	4.8	0.4	FALSE	0.1
8/19/2003	14:15	8/19/2003 14:15	27.1	6.7	177	4.7	0.4	FALSE	0.1
8/19/2003	14:30	8/19/2003 14:30	27.2	6.7	177	4.1	0.3	FALSE	0.1
8/19/2003	14:45	8/19/2003 14:45	27.2	6.7	177	3.7	0.3	FALSE	0.1
8/19/2003	15:00	8/19/2003 15:00	27.2	6.7	178	3.6	0.3	FALSE	0.1
8/19/2003	15:15	8/19/2003 15:15	27.3	6.7	178	4.7	0.4	FALSE	0.1
8/19/2003	15:30	8/19/2003 15:30	27.3	6.7	179	5.1	0.4	FALSE	0.1
8/19/2003	15:45	8/19/2003 15:45	27.4	6.7	178	4.5	0.4	FALSE	0.1
8/19/2003	16:00	8/19/2003 16:00	27.4	6.7	179	6.1	0.5	FALSE	0.1
8/19/2003	16:15	8/19/2003 16:15	27.4	6.7	179	6.7	0.5	FALSE	0.1
8/19/2003	16:30	8/19/2003 16:30	27.4	6.7	179	4.9	0.4	FALSE	0.1
8/19/2003	16:45	8/19/2003 16:45	27.5	6.7	179	6.4	0.5	FALSE	0.1
8/19/2003	17:00	8/19/2003 17:00	27.7	6.7	180	6.6	0.5	FALSE	0.1
8/19/2003	17:15	8/19/2003 17:15	27.7	6.7	180	6.4	0.5	FALSE	0.1
8/19/2003	17:30	8/19/2003 17:30	27.7	6.7	180	6.6	0.5	FALSE	0.1
8/19/2003	17:45	8/19/2003 17:45	27.8	6.6	180	5.7	0.5	FALSE	0.1
8/19/2003	18:00	8/19/2003 18:00	27.9	6.7	180	6.6	0.5	FALSE	0.1
8/19/2003	18:15	8/19/2003 18:15	28	6.7	180	7.3	0.6	FALSE	0.1
8/19/2003	18:30	8/19/2003 18:30	28	6.7	180	8.1	0.6	FALSE	0.1
8/19/2003	18:45	8/19/2003 18:45	28.1	6.7	180	7.7	0.6	FALSE	0.1
8/19/2003	19:00	8/19/2003 19:00	28.1	6.7	180	10.3	0.8	FALSE	0.1
8/19/2003	19:15	8/19/2003 19:15	28.2	6.7	178	17.1	1.3	FALSE	0.1
8/19/2003	19:30	8/19/2003 19:30	28.1	6.7	179	13	1	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/19/2003	19:45	8/19/2003 19:45	28.1	6.7	178	12.7	1	FALSE	0.1
8/19/2003	20:00	8/19/2003 20:00	28.1	6.7	178	13.8	1.1	FALSE	0.1
8/19/2003	20:15	8/19/2003 20:15	28.1	6.7	179	11.8	0.9	FALSE	0.1
8/19/2003	20:30	8/19/2003 20:30	28	6.7	178	10.9	0.9	FALSE	0.1
8/19/2003	20:45	8/19/2003 20:45	28	6.7	179	9.9	0.8	FALSE	0.1
8/19/2003	21:00	8/19/2003 21:00	27.9	6.7	179	9.1	0.7	FALSE	0.1
8/19/2003	21:15	8/19/2003 21:15	27.9	6.7	180	8.3	0.7	FALSE	0.1
8/19/2003	21:30	8/19/2003 21:30	27.8	6.7	181	6.6	0.5	FALSE	0.1
8/19/2003	21:45	8/19/2003 21:45	27.7	6.7	182	5.7	0.5	FALSE	0.1
8/19/2003	22:00	8/19/2003 22:00	27.7	6.7	183	5.3	0.4	FALSE	0.1
8/19/2003	22:15	8/19/2003 22:15	27.6	6.7	184	4.2	0.3	FALSE	0.1
8/19/2003	22:30	8/19/2003 22:30	27.6	6.7	185	2.7	0.2	FALSE	0.1
8/19/2003	22:45	8/19/2003 22:45	27.5	6.7	187	2.1	0.2	FALSE	0.1
8/19/2003	23:00	8/19/2003 23:00	27.5	6.7	189	1.8	0.1	FALSE	0.1
8/19/2003	23:15	8/19/2003 23:15	27.4	6.7	190	1.6	0.1	FALSE	0.1
8/19/2003	23:30	8/19/2003 23:30	27.4	6.7	191	1.2	0.1	FALSE	0.1
8/19/2003	23:45	8/19/2003 23:45	27.4	6.7	191	1.6	0.1	FALSE	0.1
8/20/2003	0:00	8/20/2003 00:00	27.3	6.7	191	1.5	0.1	FALSE	0.1
8/20/2003	0:15	8/20/2003 00:15	27.3	6.7	191	1.3	0.1	FALSE	0.1
8/20/2003	0:30	8/20/2003 00:30	27.3	6.7	191	1.4	0.1	FALSE	0.1
8/20/2003	0:45	8/20/2003 00:45	27.3	6.7	191	1	0.1	FALSE	0.1
8/20/2003	1:00	8/20/2003 01:00	27.3	6.7	191	1.2	0.1	FALSE	0.1
8/20/2003	1:15	8/20/2003 01:15	27.2	6.7	191	0.9	0.1	FALSE	0.1
8/20/2003	1:30	8/20/2003 01:30	27.2	6.7	191	1.1	0.1	FALSE	0.1
8/20/2003	1:45	8/20/2003 01:45	27.2	6.7	192	1.1	0.1	FALSE	0.1
8/20/2003	2:00	8/20/2003 02:00	27.2	6.7	192	1.3	0.1	FALSE	0.1
8/20/2003	2:15	8/20/2003 02:15	27.2	6.7	192	1.1	0.1	FALSE	0.1
8/20/2003	2:30	8/20/2003 02:30	27.1	6.7	192	1.3	0.1	FALSE	0.1
8/20/2003	2:45	8/20/2003 02:45	27.1	6.7	192	1.5	0.1	FALSE	0.1
8/20/2003	3:00	8/20/2003 03:00	27.1	6.7	192	1	0.1	FALSE	0.1
8/20/2003	3:15	8/20/2003 03:15	27.1	6.7	192	1.2	0.1	FALSE	0.1
8/20/2003	3:30	8/20/2003 03:30	27	6.7	192	1	0.1	FALSE	0.1
8/20/2003	3:45	8/20/2003 03:45	27	6.7	192	0.9	0.1	FALSE	0.1
8/20/2003	4:00	8/20/2003 04:00	27	6.7	192	1	0.1	FALSE	0.1
8/20/2003	4:15	8/20/2003 04:15	27	6.7	193	1.2	0.1	FALSE	0.1
8/20/2003	4:30	8/20/2003 04:30	27	6.7	193	1	0.1	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	4:45	8/20/2003 04:45	27	6.7	194	1	0.1	FALSE	0.1
8/20/2003	5:00	8/20/2003 05:00	27	6.7	194	1.1	0.1	FALSE	0.1
8/20/2003	5:15	8/20/2003 05:15	27	6.7	194	1.3	0.1	FALSE	0.1
8/20/2003	5:30	8/20/2003 05:30	26.9	6.7	194	0.9	0.1	FALSE	0.1
8/20/2003	5:45	8/20/2003 05:45	26.9	6.7	194	1.1	0.1	FALSE	0.1
8/20/2003	6:00	8/20/2003 06:00	26.9	6.7	194	0.9	0.1	FALSE	0.1
8/20/2003	6:15	8/20/2003 06:15	26.9	6.7	194	1.1	0.1	FALSE	0.1
8/20/2003	6:30	8/20/2003 06:30	26.9	6.7	194	1	0.1	FALSE	0.1
8/20/2003	6:45	8/20/2003 06:45	26.9	6.7	195	1.2	0.1	FALSE	0.1
8/20/2003	7:00	8/20/2003 07:00	26.9	6.7	195	1.2	0.1	FALSE	0.1
8/20/2003	7:15	8/20/2003 07:15	26.9	6.7	195	1.2	0.1	FALSE	0.1
8/20/2003	7:30	8/20/2003 07:30	26.9	6.7	195	0.7	0.1	FALSE	0.1
8/20/2003	7:45	8/20/2003 07:45	26.9	6.7	196	0.9	0.1	FALSE	0.1
8/20/2003	8:00	8/20/2003 08:00	26.9	6.7	196	1.3	0.1	FALSE	0.1
8/20/2003	8:15	8/20/2003 08:15	26.9	6.7	196	1.1	0.1	FALSE	0.1
8/20/2003	8:30	8/20/2003 08:30	26.9	6.7	197	1.2	0.1	FALSE	0.1
8/20/2003	8:45	8/20/2003 08:45	26.9	6.7	197	1.1	0.1	FALSE	0.1
8/20/2003	9:00	8/20/2003 09:00	26.9	6.7	197	0.7	0.1	FALSE	0.1
8/20/2003	9:15	8/20/2003 09:15	27	6.7	197	1.2	0.1	FALSE	0.1
8/20/2003	9:30	8/20/2003 09:30	27	6.7	198	1.1	0.1	FALSE	0.1
8/20/2003	9:45	8/20/2003 09:45	27	6.7	198	1.2	0.1	FALSE	0.1
8/20/2003	10:00	8/20/2003 10:00	27	6.7	198	0.8	0.1	FALSE	0.1
8/20/2003	10:15	8/20/2003 10:15	27	6.7	198	1	0.1	FALSE	0.1
8/20/2003	10:30	8/20/2003 10:30	27	6.7	198	1	0.1	FALSE	0.1
8/20/2003	10:45	8/20/2003 10:45	27	6.7	198	1.2	0.1	FALSE	0.1
8/20/2003	11:00	8/20/2003 11:00	27.1	6.7	198	1	0.1	FALSE	0.1
8/20/2003	11:15	8/20/2003 11:15	27.1	6.7	198	1.2	0.1	FALSE	0.1
8/20/2003	11:30	8/20/2003 11:30	27.1	6.7	199	1.2	0.1	FALSE	0.1
8/20/2003	11:45	8/20/2003 11:45	27.2	6.7	199	1	0.1	FALSE	0.1
8/20/2003	12:00	8/20/2003 12:00	27.2	6.7	199	1	0.1	FALSE	0.1
8/20/2003	12:15	8/20/2003 12:15	27.2	6.7	199	1.2	0.1	FALSE	0.1
8/20/2003	12:30	8/20/2003 12:30	27.3	6.7	199	0.8	0.1	FALSE	0.1
8/20/2003	12:45	8/20/2003 12:45	27.3	6.7	199	1	0.1	FALSE	0.1
8/20/2003	13:00	8/20/2003 13:00	27.3	6.7	198	0.9	0.1	FALSE	0.1
8/20/2003	13:15	8/20/2003 13:15	27.3	6.7	200	0.8	0.1	FALSE	0.1
8/20/2003	13:30	8/20/2003 13:30	27.4	6.7	198	0.9	0.1	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	13:45	8/20/2003 13:45	27.4	6.7	199	0.8	0.1	FALSE	0.1
8/20/2003	14:00	8/20/2003 14:00	27.6	6.7	199	1.2	0.1	FALSE	0.1
8/20/2003	14:15	8/20/2003 14:15	27.4	6.7	199	0.7	0.1	FALSE	0.1
8/20/2003	14:30	8/20/2003 14:30	27.9	6.7	194	4.2	0.3	FALSE	0.1
8/20/2003	14:45	8/20/2003 14:45	27.4	6.7	179	16.9	1.3	FALSE	0.1
8/20/2003	15:00	8/20/2003 15:00	27.3	6.7	172	21.2	1.7	FALSE	0.1
8/20/2003	15:15	8/20/2003 15:15	27.3	6.7	175	19.5	1.6	FALSE	0.1
8/20/2003	15:30	8/20/2003 15:30	27.3	6.7	177	20.8	1.7	FALSE	0.1
8/20/2003	15:45	8/20/2003 15:45	27.3	6.7	176	21.6	1.7	FALSE	0.1
8/20/2003	16:00	8/20/2003 16:00	27.3	6.7	176	21.3	1.7	FALSE	0.1
8/20/2003	16:15	8/20/2003 16:15	27.3	6.7	175	21.8	1.7	FALSE	0.1
8/20/2003	16:30	8/20/2003 16:30	27.4	6.7	173	22.9	1.8	FALSE	0.1
8/20/2003	16:45	8/20/2003 16:45	27.3	6.7	169	24.5	1.9	FALSE	0.1
8/20/2003	17:00	8/20/2003 17:00	27.4	6.7	166	25	2	FALSE	0.1
8/20/2003	17:15	8/20/2003 17:15	27.4	6.7	166	23.2	1.8	FALSE	0.1
8/20/2003	17:30	8/20/2003 17:30	27.4	6.7	166	21.3	1.7	FALSE	0.1
8/20/2003	17:45	8/20/2003 17:45	27.4	6.7	165	20.7	1.6	FALSE	0.1
8/20/2003	18:00	8/20/2003 18:00	27.4	6.7	165	19.9	1.6	FALSE	0.1
8/20/2003	18:15	8/20/2003 18:15	27.4	6.7	166	19.3	1.5	FALSE	0.1
8/20/2003	18:30	8/20/2003 18:30	27.4	6.7	166	17.9	1.4	FALSE	0.1
8/20/2003	18:45	8/20/2003 18:45	27.4	6.7	165	16.8	1.3	FALSE	0.1
8/20/2003	19:00	8/20/2003 19:00	27.4	6.7	165	15.8	1.3	FALSE	0.1
8/20/2003	19:15	8/20/2003 19:15	27.4	6.7	165	15.5	1.2	FALSE	0.1
8/20/2003	19:30	8/20/2003 19:30	27.4	6.7	166	14.7	1.2	FALSE	0.1
8/20/2003	19:45	8/20/2003 19:45	27.4	6.7	167	13.4	1.1	FALSE	0.1
8/20/2003	20:00	8/20/2003 20:00	27.4	6.7	167	13.6	1.1	FALSE	0.1
8/20/2003	20:15	8/20/2003 20:15	27.4	6.7	166	12.3	1	FALSE	0.1
8/20/2003	20:30	8/20/2003 20:30	27.4	6.6	166	12.3	1	FALSE	0.1
8/20/2003	20:45	8/20/2003 20:45	27.4	6.7	166	11.8	0.9	FALSE	0.1
8/20/2003	21:00	8/20/2003 21:00	27.4	6.6	167	11.3	0.9	FALSE	0.1
8/20/2003	21:15	8/20/2003 21:15	27.4	6.7	167	10.4	0.8	FALSE	0.1
8/20/2003	21:30	8/20/2003 21:30	27.4	6.6	166	9.8	0.8	FALSE	0.1
8/20/2003	21:45	8/20/2003 21:45	27.3	6.6	168	9.4	0.8	FALSE	0.1
8/20/2003	22:00	8/20/2003 22:00	27.3	6.6	167	9.2	0.7	FALSE	0.1
8/20/2003	22:15	8/20/2003 22:15	27.3	6.6	169	9.2	0.7	FALSE	0.1
8/20/2003	22:30	8/20/2003 22:30	27.3	6.6	167	7.1	0.6	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	22:45	8/20/2003 22:45	27.3	6.6	167	5.7	0.5	FALSE	0.1
8/20/2003	23:00	8/20/2003 23:00	27.3	6.6	168	5.2	0.4	FALSE	0.1
8/20/2003	23:15	8/20/2003 23:15	27.2	6.6	170	4.7	0.4	FALSE	0.1
8/20/2003	23:30	8/20/2003 23:30	27.2	6.6	170	3.9	0.3	FALSE	0.1
8/20/2003	23:45	8/20/2003 23:45	27.2	6.6	170	4.8	0.4	FALSE	0.1
8/21/2003	0:00	8/21/2003 00:00	27.1	6.6	170	4.2	0.3	FALSE	0.1
8/21/2003	0:15	8/21/2003 00:15	27.1	6.6	170	5.1	0.4	FALSE	0.1
8/21/2003	0:30	8/21/2003 00:30	27.1	6.6	170	5.8	0.5	FALSE	0.1
8/21/2003	0:45	8/21/2003 00:45	27	6.6	170	6.1	0.5	FALSE	0.1
8/21/2003	1:00	8/21/2003 01:00	27	6.6	171	5.6	0.5	FALSE	0.1
8/21/2003	1:15	8/21/2003 01:15	27	6.6	172	5.1	0.4	FALSE	0.1
8/21/2003	1:30	8/21/2003 01:30	26.9	6.6	171	4.5	0.4	FALSE	0.1
8/21/2003	1:45	8/21/2003 01:45	26.9	6.6	172	4.4	0.4	FALSE	0.1
8/21/2003	2:00	8/21/2003 02:00	26.9	6.6	173	4.1	0.3	FALSE	0.1
8/21/2003	2:15	8/21/2003 02:15	26.8	6.6	173	4.5	0.4	FALSE	0.1
8/21/2003	2:30	8/21/2003 02:30	26.8	6.6	173	4.2	0.3	FALSE	0.1
8/21/2003	2:45	8/21/2003 02:45	26.7	6.6	170	5.4	0.4	FALSE	0.1
8/21/2003	3:00	8/21/2003 03:00	26.7	6.6	168	7.2	0.6	FALSE	0.1
8/21/2003	3:15	8/21/2003 03:15	26.6	6.6	165	7.4	0.6	FALSE	0.1
8/21/2003	3:30	8/21/2003 03:30	26.6	6.6	165	7.4	0.6	FALSE	0.1
8/21/2003	3:45	8/21/2003 03:45	26.6	6.6	167	6.2	0.5	FALSE	0.1
8/21/2003	4:00	8/21/2003 04:00	26.6	6.6	166	5.9	0.5	FALSE	0.1
8/21/2003	4:15	8/21/2003 04:15	26.5	6.6	167	4.8	0.4	FALSE	0.1
8/21/2003	4:30	8/21/2003 04:30	26.5	6.6	168	4.3	0.4	FALSE	0.1
8/21/2003	4:45	8/21/2003 04:45	26.5	6.6	168	3.7	0.3	FALSE	0.1
8/21/2003	5:00	8/21/2003 05:00	26.4	6.6	169	4	0.3	FALSE	0.1
8/21/2003	5:15	8/21/2003 05:15	26.4	6.6	169	3.7	0.3	FALSE	0.1
8/21/2003	5:30	8/21/2003 05:30	26.4	6.6	168	3.7	0.3	FALSE	0.1
8/21/2003	5:45	8/21/2003 05:45	26.4	6.6	168	3.5	0.3	FALSE	0.1
8/21/2003	6:00	8/21/2003 06:00	26.4	6.6	168	3.4	0.3	FALSE	0.1
8/21/2003	6:15	8/21/2003 06:15	26.3	6.6	168	2.9	0.2	FALSE	0.1
8/21/2003	6:30	8/21/2003 06:30	26.3	6.6	167	3.1	0.3	FALSE	0.1
8/21/2003	6:45	8/21/2003 06:45	26.3	6.6	167	3.1	0.3	FALSE	0.1
8/21/2003	7:00	8/21/2003 07:00	26.3	6.6	166	2.4	0.2	FALSE	0.1
8/21/2003	7:15	8/21/2003 07:15	26.2	6.6	166	2.9	0.2	FALSE	0.1
8/21/2003	7:30	8/21/2003 07:30	26.2	6.6	165	2.2	0.2	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

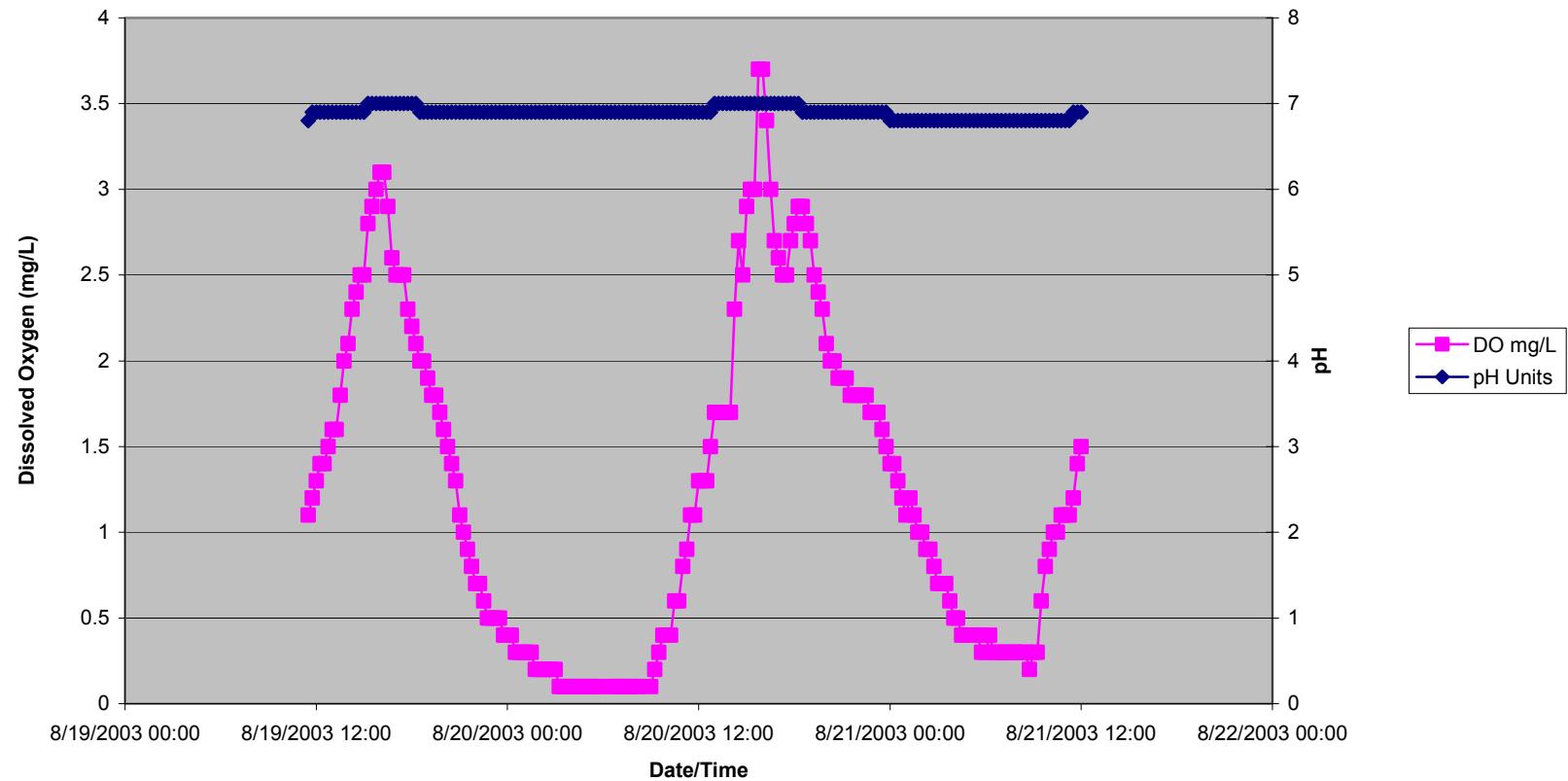
Revised: December 17, 2004

Revised: January 7, 2005

8/21/2003	7:45	8/21/2003 07:45	26.2	6.6	165	2	0.2	FALSE	0.1
8/21/2003	8:00	8/21/2003 08:00	26.2	6.6	165	2	0.2	FALSE	0.1
8/21/2003	8:15	8/21/2003 08:15	26.2	6.6	165	2.2	0.2	FALSE	0.1
8/21/2003	8:30	8/21/2003 08:30	26.1	6.6	165	2.2	0.2	FALSE	0.1
8/21/2003	8:45	8/21/2003 08:45	26.1	6.6	165	2.1	0.2	FALSE	0.1
8/21/2003	9:00	8/21/2003 09:00	26.1	6.6	166	1.2	0.1	FALSE	0.1
8/21/2003	9:15	8/21/2003 09:15	26.1	6.6	164	1	0.1	FALSE	0.1
8/21/2003	9:30	8/21/2003 09:30	26.1	6.6	166	1.1	0.1	FALSE	0.1
8/21/2003	9:45	8/21/2003 09:45	26.2	6.6	166	1.3	0.1	FALSE	0.1
8/21/2003	10:00	8/21/2003 10:00	26.2	6.6	165	0.8	0.1	FALSE	0.1
8/21/2003	10:15	8/21/2003 10:15	26.2	6.6	165	0.8	0.1	FALSE	0.1
8/21/2003	10:30	8/21/2003 10:30	26.2	6.6	164	1	0.1	FALSE	0.1
8/21/2003	10:45	8/21/2003 10:45	26.1	6.6	164	0.9	0.1	FALSE	0.1
			27.1126	6.67	179.52	5.7	0.46		0.1
			Temp	pH	Cond	%DO Sat	DO		Salinity

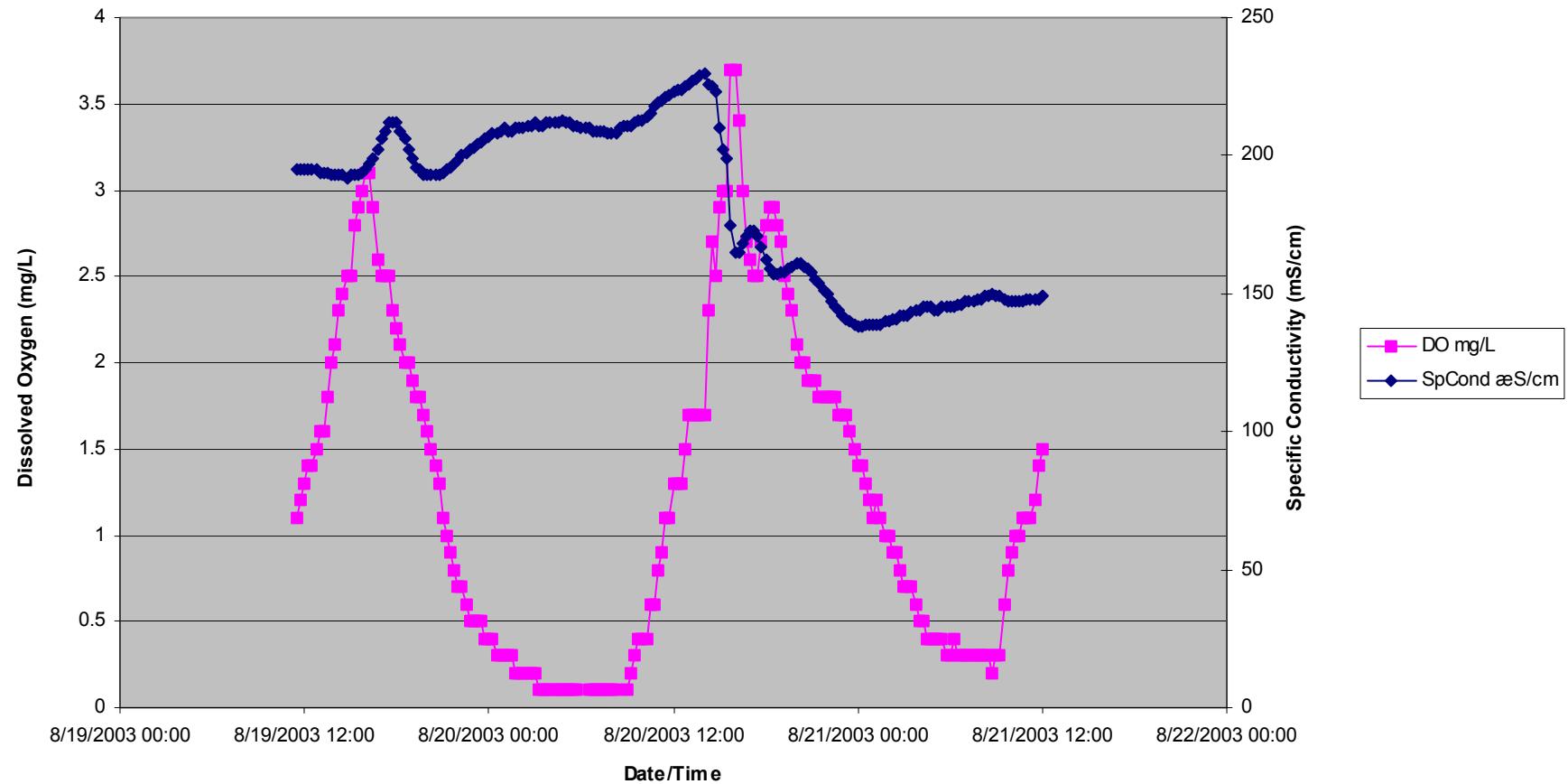
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC3A: DO & pH v. Date/Time



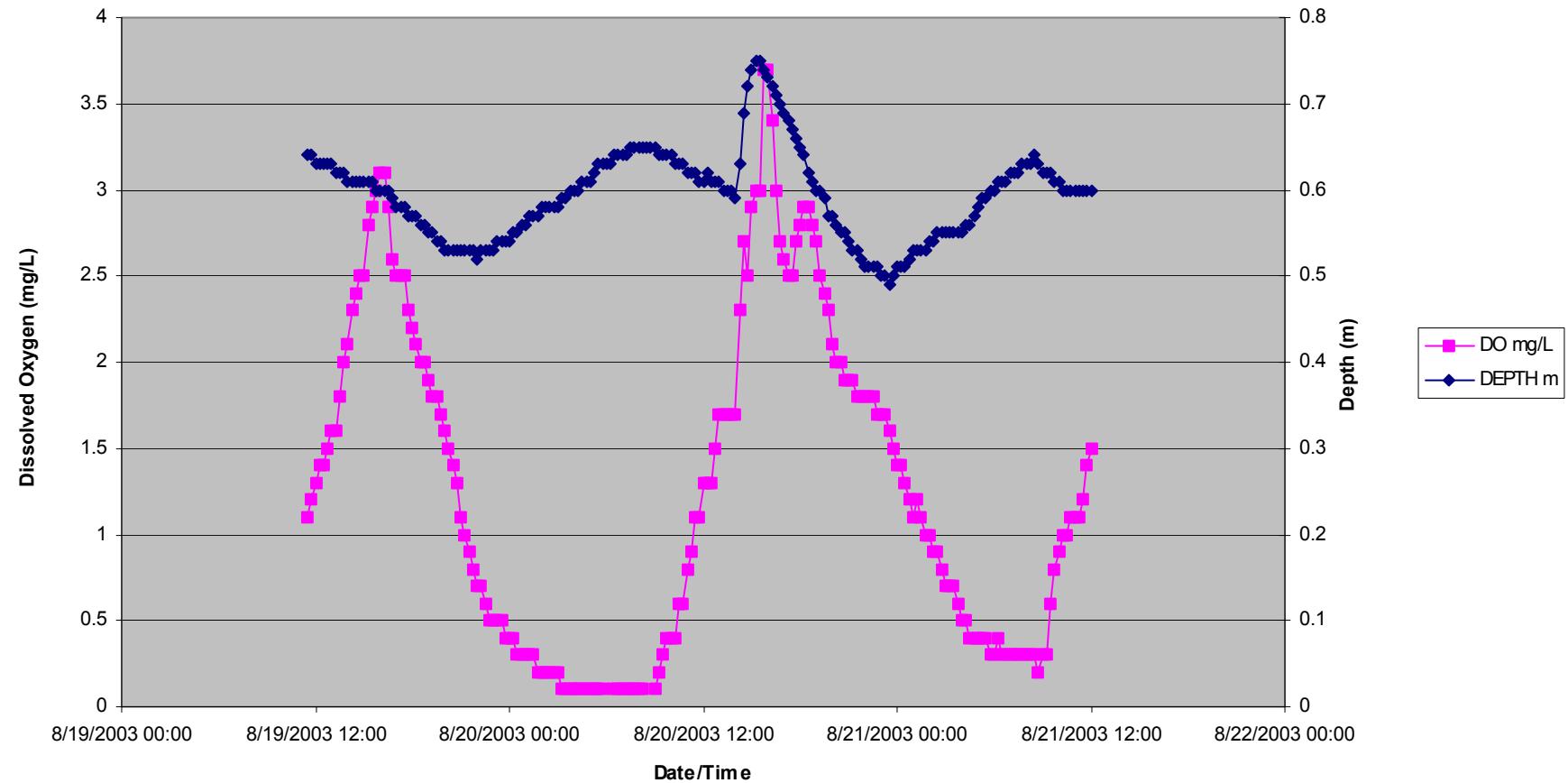
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC3A: DO & SpCond v. Date/Time



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC3A: DO & Depth v. Date/Time



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Date MMDDYY	Time HHMM	Date+Time MMDDYYYY HHMM	Temp °C	pH Units	SpCond µS/cm	DEPTH m	DO% Sat	DO mg/L	VENTED DEPTH True/False	SALINITY ppt
8/19/2003	11:30	8/19/2003 11:30	27.7	6.8	195	0.64	13.9	1.1	FALSE	0.1
8/19/2003	11:45	8/19/2003 11:45	27.8	6.9	195	0.64	15.1	1.2	FALSE	0.1
8/19/2003	12:00	8/19/2003 12:00	27.9	6.9	195	0.63	16.2	1.3	FALSE	0.1
8/19/2003	12:15	8/19/2003 12:15	28	6.9	195	0.63	17.8	1.4	FALSE	0.1
8/19/2003	12:30	8/19/2003 12:30	28	6.9	195	0.63	17.6	1.4	FALSE	0.1
8/19/2003	12:45	8/19/2003 12:45	28.1	6.9	195	0.63	18.8	1.5	FALSE	0.1
8/19/2003	13:00	8/19/2003 13:00	28.2	6.9	194	0.63	20.3	1.6	FALSE	0.1
8/19/2003	13:15	8/19/2003 13:15	28.2	6.9	194	0.62	20.9	1.6	FALSE	0.1
8/19/2003	13:30	8/19/2003 13:30	28.3	6.9	194	0.62	23.6	1.8	FALSE	0.1
8/19/2003	13:45	8/19/2003 13:45	28.5	6.9	193	0.62	25.9	2	FALSE	0.1
8/19/2003	14:00	8/19/2003 14:00	28.5	6.9	193	0.61	26.6	2.1	FALSE	0.1
8/19/2003	14:15	8/19/2003 14:15	28.7	6.9	193	0.61	30.2	2.3	FALSE	0.1
8/19/2003	14:30	8/19/2003 14:30	28.8	6.9	193	0.61	31.1	2.4	FALSE	0.1
8/19/2003	14:45	8/19/2003 14:45	28.8	6.9	192	0.61	32.2	2.5	FALSE	0.1
8/19/2003	15:00	8/19/2003 15:00	28.8	6.9	193	0.61	32.3	2.5	FALSE	0.1
8/19/2003	15:15	8/19/2003 15:15	29	7	193	0.61	35.8	2.8	FALSE	0.1
8/19/2003	15:30	8/19/2003 15:30	29.1	7	193	0.61	37.6	2.9	FALSE	0.1
8/19/2003	15:45	8/19/2003 15:45	29.1	7	194	0.6	38.7	3	FALSE	0.1
8/19/2003	16:00	8/19/2003 16:00	29.2	7	195	0.6	40.2	3.1	FALSE	0.1
8/19/2003	16:15	8/19/2003 16:15	29.2	7	197	0.6	40.1	3.1	FALSE	0.1
8/19/2003	16:30	8/19/2003 16:30	29.1	7	199	0.6	37.1	2.9	FALSE	0.1
8/19/2003	16:45	8/19/2003 16:45	29.1	7	202	0.59	34.3	2.6	FALSE	0.1
8/19/2003	17:00	8/19/2003 17:00	29.1	7	206	0.58	32.4	2.5	FALSE	0.1
8/19/2003	17:15	8/19/2003 17:15	29.1	7	209	0.58	32.2	2.5	FALSE	0.1
8/19/2003	17:30	8/19/2003 17:30	29	7	212	0.58	31.9	2.5	FALSE	0.1
8/19/2003	17:45	8/19/2003 17:45	29	7	212	0.57	29.9	2.3	FALSE	0.1
8/19/2003	18:00	8/19/2003 18:00	29	7	212	0.57	28.3	2.2	FALSE	0.1
8/19/2003	18:15	8/19/2003 18:15	29	7	209	0.57	27	2.1	FALSE	0.1
8/19/2003	18:30	8/19/2003 18:30	29	6.9	206	0.56	26.3	2	FALSE	0.1
8/19/2003	18:45	8/19/2003 18:45	29	6.9	202	0.56	25.5	2	FALSE	0.1
8/19/2003	19:00	8/19/2003 19:00	29	6.9	199	0.55	24.6	1.9	FALSE	0.1
8/19/2003	19:15	8/19/2003 19:15	29	6.9	196	0.55	23.7	1.8	FALSE	0.1
8/19/2003	19:30	8/19/2003 19:30	29	6.9	195	0.54	23.1	1.8	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/19/2003	19:45	8/19/2003 19:45	29	6.9	193	0.54	22	1.7	FALSE	0.1
8/19/2003	20:00	8/19/2003 20:00	29	6.9	193	0.53	20.8	1.6	FALSE	0.1
8/19/2003	20:15	8/19/2003 20:15	29	6.9	193	0.53	19.5	1.5	FALSE	0.1
8/19/2003	20:30	8/19/2003 20:30	28.9	6.9	193	0.53	18.3	1.4	FALSE	0.1
8/19/2003	20:45	8/19/2003 20:45	28.9	6.9	193	0.53	16.3	1.3	FALSE	0.1
8/19/2003	21:00	8/19/2003 21:00	28.8	6.9	194	0.53	14.7	1.1	FALSE	0.1
8/19/2003	21:15	8/19/2003 21:15	28.8	6.9	195	0.53	13.2	1	FALSE	0.1
8/19/2003	21:30	8/19/2003 21:30	28.7	6.9	196	0.53	12	0.9	FALSE	0.1
8/19/2003	21:45	8/19/2003 21:45	28.7	6.9	197	0.53	10.9	0.8	FALSE	0.1
8/19/2003	22:00	8/19/2003 22:00	28.6	6.9	198	0.52	9.5	0.7	FALSE	0.1
8/19/2003	22:15	8/19/2003 22:15	28.6	6.9	200	0.53	8.5	0.7	FALSE	0.1
8/19/2003	22:30	8/19/2003 22:30	28.5	6.9	201	0.53	7.5	0.6	FALSE	0.1
8/19/2003	22:45	8/19/2003 22:45	28.5	6.9	202	0.53	6.8	0.5	FALSE	0.1
8/19/2003	23:00	8/19/2003 23:00	28.4	6.9	203	0.53	6.5	0.5	FALSE	0.1
8/19/2003	23:15	8/19/2003 23:15	28.4	6.9	204	0.54	6.4	0.5	FALSE	0.1
8/19/2003	23:30	8/19/2003 23:30	28.4	6.9	205	0.54	5.8	0.5	FALSE	0.1
8/19/2003	23:45	8/19/2003 23:45	28.4	6.9	206	0.54	5.3	0.4	FALSE	0.1
8/20/2003	0:00	8/20/2003 00:00	28.4	6.9	207	0.54	4.9	0.4	FALSE	0.1
8/20/2003	0:15	8/20/2003 00:15	28.4	6.9	208	0.55	4.8	0.4	FALSE	0.1
8/20/2003	0:30	8/20/2003 00:30	28.3	6.9	208	0.55	4.2	0.3	FALSE	0.1
8/20/2003	0:45	8/20/2003 00:45	28.3	6.9	209	0.56	3.4	0.3	FALSE	0.1
8/20/2003	1:00	8/20/2003 01:00	28.3	6.9	210	0.56	4.4	0.3	FALSE	0.1
8/20/2003	1:15	8/20/2003 01:15	28.3	6.9	209	0.57	3.5	0.3	FALSE	0.1
8/20/2003	1:30	8/20/2003 01:30	28.3	6.9	209	0.57	3.5	0.3	FALSE	0.1
8/20/2003	1:45	8/20/2003 01:45	28.3	6.9	210	0.57	2.9	0.2	FALSE	0.1
8/20/2003	2:00	8/20/2003 02:00	28.2	6.9	210	0.58	2.5	0.2	FALSE	0.1
8/20/2003	2:15	8/20/2003 02:15	28.2	6.9	210	0.58	2.4	0.2	FALSE	0.1
8/20/2003	2:30	8/20/2003 02:30	28.2	6.9	211	0.58	2	0.2	FALSE	0.1
8/20/2003	2:45	8/20/2003 02:45	28.2	6.9	211	0.58	2	0.2	FALSE	0.1
8/20/2003	3:00	8/20/2003 03:00	28.1	6.9	212	0.58	2.1	0.2	FALSE	0.1
8/20/2003	3:15	8/20/2003 03:15	28.1	6.9	211	0.59	1.6	0.1	FALSE	0.1
8/20/2003	3:30	8/20/2003 03:30	28.1	6.9	211	0.59	1.6	0.1	FALSE	0.1
8/20/2003	3:45	8/20/2003 03:45	28.1	6.9	212	0.6	1.6	0.1	FALSE	0.1
8/20/2003	4:00	8/20/2003 04:00	28.1	6.9	212	0.6	1.4	0.1	FALSE	0.1
8/20/2003	4:15	8/20/2003 04:15	28.1	6.9	212	0.6	1.2	0.1	FALSE	0.1
8/20/2003	4:30	8/20/2003 04:30	28	6.9	212	0.61	1.4	0.1	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	4:45	8/20/2003 04:45	28	6.9	213	0.61	0.7	0.1	FALSE	0.1
8/20/2003	5:00	8/20/2003 05:00	28	6.9	212	0.61	0.9	0.1	FALSE	0.1
8/20/2003	5:15	8/20/2003 05:15	28	6.9	212	0.62	0.7	0.1	FALSE	0.1
8/20/2003	5:30	8/20/2003 05:30	28	6.9	211	0.63	0.8	0.1	FALSE	0.1
8/20/2003	5:45	8/20/2003 05:45	27.9	6.9	211	0.63	0.7	0.1	FALSE	0.1
8/20/2003	6:00	8/20/2003 06:00	27.9	6.9	210	0.63	0.5		FALSE	0.1
8/20/2003	6:15	8/20/2003 06:15	27.9	6.9	210	0.63	0.5		FALSE	0.1
8/20/2003	6:30	8/20/2003 06:30	27.9	6.9	210	0.64	0.8	0.1	FALSE	0.1
8/20/2003	6:45	8/20/2003 06:45	27.9	6.9	209	0.64	0.8	0.1	FALSE	0.1
8/20/2003	7:00	8/20/2003 07:00	27.9	6.9	209	0.64	0.6	0.1	FALSE	0.1
8/20/2003	7:15	8/20/2003 07:15	27.8	6.9	209	0.64	0.7	0.1	FALSE	0.1
8/20/2003	7:30	8/20/2003 07:30	27.8	6.9	209	0.65	0.8	0.1	FALSE	0.1
8/20/2003	7:45	8/20/2003 07:45	27.8	6.9	208	0.65	0.9	0.1	FALSE	0.1
8/20/2003	8:00	8/20/2003 08:00	27.8	6.9	208	0.65	0.8	0.1	FALSE	0.1
8/20/2003	8:15	8/20/2003 08:15	27.8	6.9	208	0.65	1.6	0.1	FALSE	0.1
8/20/2003	8:30	8/20/2003 08:30	27.8	6.9	210	0.65	0.5		FALSE	0.1
8/20/2003	8:45	8/20/2003 08:45	27.8	6.9	211	0.65	0.5		FALSE	0.1
8/20/2003	9:00	8/20/2003 09:00	27.8	6.9	211	0.65	1.1	0.1	FALSE	0.1
8/20/2003	9:15	8/20/2003 09:15	27.8	6.9	211	0.64	2.2	0.2	FALSE	0.1
8/20/2003	9:30	8/20/2003 09:30	27.9	6.9	212	0.64	3.2	0.3	FALSE	0.1
8/20/2003	9:45	8/20/2003 09:45	27.9	6.9	213	0.64	4.5	0.4	FALSE	0.1
8/20/2003	10:00	8/20/2003 10:00	28	6.9	213	0.64	5.2	0.4	FALSE	0.1
8/20/2003	10:15	8/20/2003 10:15	28	6.9	214	0.63	5.7	0.4	FALSE	0.1
8/20/2003	10:30	8/20/2003 10:30	28.1	6.9	215	0.63	8.1	0.6	FALSE	0.1
8/20/2003	10:45	8/20/2003 10:45	28.1	6.9	218	0.63	7.8	0.6	FALSE	0.1
8/20/2003	11:00	8/20/2003 11:00	28.2	6.9	219	0.62	9.8	0.8	FALSE	0.1
8/20/2003	11:15	8/20/2003 11:15	28.2	6.9	220	0.62	12.1	0.9	FALSE	0.1
8/20/2003	11:30	8/20/2003 11:30	28.3	6.9	221	0.62	13.6	1.1	FALSE	0.1
8/20/2003	11:45	8/20/2003 11:45	28.4	6.9	222	0.61	14.5	1.1	FALSE	0.1
8/20/2003	12:00	8/20/2003 12:00	28.4	6.9	223	0.61	16.1	1.3	FALSE	0.1
8/20/2003	12:15	8/20/2003 12:15	28.5	6.9	224	0.62	16.5	1.3	FALSE	0.1
8/20/2003	12:30	8/20/2003 12:30	28.5	6.9	224	0.61	16.6	1.3	FALSE	0.1
8/20/2003	12:45	8/20/2003 12:45	28.6	6.9	225	0.61	19.1	1.5	FALSE	0.1
8/20/2003	13:00	8/20/2003 13:00	28.6	7	226	0.61	21.3	1.7	FALSE	0.1
8/20/2003	13:15	8/20/2003 13:15	28.6	7	227	0.6	22	1.7	FALSE	0.1
8/20/2003	13:30	8/20/2003 13:30	28.6	7	228	0.6	21.5	1.7	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	13:45	8/20/2003 13:45	28.6	7	229	0.6	21.7	1.7	FALSE	0.1
8/20/2003	14:00	8/20/2003 14:00	28.6	7	230	0.59	21.6	1.7	FALSE	0.1
8/20/2003	14:15	8/20/2003 14:15	28.5	7	226	0.63	29.3	2.3	FALSE	0.1
8/20/2003	14:30	8/20/2003 14:30	28.4	7	225	0.69	34.7	2.7	FALSE	0.1
8/20/2003	14:45	8/20/2003 14:45	28.3	7	223	0.72	32.6	2.5	FALSE	0.1
8/20/2003	15:00	8/20/2003 15:00	28.1	7	210	0.74	37.3	2.9	FALSE	0.1
8/20/2003	15:15	8/20/2003 15:15	28.1	7	202	0.75	37.7	3	FALSE	0.1
8/20/2003	15:30	8/20/2003 15:30	28	7	199	0.75	38.7	3	FALSE	0.1
8/20/2003	15:45	8/20/2003 15:45	27.5	7	175	0.74	46.6	3.7	FALSE	0.1
8/20/2003	16:00	8/20/2003 16:00	27.3	7	165	0.73	46.6	3.7	FALSE	0.1
8/20/2003	16:15	8/20/2003 16:15	27.3	7	165	0.72	42.5	3.4	FALSE	0.1
8/20/2003	16:30	8/20/2003 16:30	27.3	7	168	0.71	37.8	3	FALSE	0.1
8/20/2003	16:45	8/20/2003 16:45	27.4	7	171	0.7	34.5	2.7	FALSE	0.1
8/20/2003	17:00	8/20/2003 17:00	27.4	7	173	0.69	32.4	2.6	FALSE	0.1
8/20/2003	17:15	8/20/2003 17:15	27.4	7	173	0.68	31.2	2.5	FALSE	0.1
8/20/2003	17:30	8/20/2003 17:30	27.4	7	171	0.67	31.9	2.5	FALSE	0.1
8/20/2003	17:45	8/20/2003 17:45	27.3	7	167	0.66	33.5	2.7	FALSE	0.1
8/20/2003	18:00	8/20/2003 18:00	27.3	7	162	0.65	35.3	2.8	FALSE	0.1
8/20/2003	18:15	8/20/2003 18:15	27.2	7	159	0.64	36.2	2.9	FALSE	0.1
8/20/2003	18:30	8/20/2003 18:30	27.2	6.9	157	0.62	36.1	2.9	FALSE	0.1
8/20/2003	18:45	8/20/2003 18:45	27.2	6.9	157	0.61	35.1	2.8	FALSE	0.1
8/20/2003	19:00	8/20/2003 19:00	27.2	6.9	158	0.6	33.6	2.7	FALSE	0.1
8/20/2003	19:15	8/20/2003 19:15	27.2	6.9	158	0.6	31.9	2.5	FALSE	0.1
8/20/2003	19:30	8/20/2003 19:30	27.2	6.9	159	0.59	30.1	2.4	FALSE	0.1
8/20/2003	19:45	8/20/2003 19:45	27.2	6.9	160	0.57	28.8	2.3	FALSE	0.1
8/20/2003	20:00	8/20/2003 20:00	27.2	6.9	161	0.57	27	2.1	FALSE	0.1
8/20/2003	20:15	8/20/2003 20:15	27.2	6.9	161	0.56	25.6	2	FALSE	0.1
8/20/2003	20:30	8/20/2003 20:30	27.2	6.9	160	0.55	24.5	2	FALSE	0.1
8/20/2003	20:45	8/20/2003 20:45	27.2	6.9	159	0.55	23.9	1.9	FALSE	0.1
8/20/2003	21:00	8/20/2003 21:00	27.2	6.9	158	0.54	23.6	1.9	FALSE	0.1
8/20/2003	21:15	8/20/2003 21:15	27.1	6.9	155	0.53	23.4	1.9	FALSE	0.1
8/20/2003	21:30	8/20/2003 21:30	27.1	6.9	154	0.53	22.4	1.8	FALSE	0.1
8/20/2003	21:45	8/20/2003 21:45	27.1	6.9	151	0.52	23	1.8	FALSE	0.1
8/20/2003	22:00	8/20/2003 22:00	27	6.9	150	0.51	22.2	1.8	FALSE	0.1
8/20/2003	22:15	8/20/2003 22:15	27	6.9	147	0.51	22.4	1.8	FALSE	0.1
8/20/2003	22:30	8/20/2003 22:30	27	6.9	145	0.51	21.9	1.8	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	22:45	8/20/2003 22:45	26.9	6.9	144	0.51	21.4	1.7	FALSE	0.1
8/20/2003	23:00	8/20/2003 23:00	26.9	6.9	142	0.5	21.1	1.7	FALSE	0.1
8/20/2003	23:15	8/20/2003 23:15	26.9	6.9	141	0.5	20.8	1.7	FALSE	0.1
8/20/2003	23:30	8/20/2003 23:30	26.8	6.9	140	0.49	20	1.6	FALSE	0.1
8/20/2003	23:45	8/20/2003 23:45	26.8	6.9	139	0.5	18.7	1.5	FALSE	0.1
8/21/2003	0:00	8/21/2003 00:00	26.8	6.8	138	0.51	18.1	1.4	FALSE	0.1
8/21/2003	0:15	8/21/2003 00:15	26.8	6.8	138	0.51	17.2	1.4	FALSE	0.1
8/21/2003	0:30	8/21/2003 00:30	26.8	6.8	139	0.51	16.4	1.3	FALSE	0.1
8/21/2003	0:45	8/21/2003 00:45	26.8	6.8	139	0.52	15.4	1.2	FALSE	0.1
8/21/2003	1:00	8/21/2003 01:00	26.7	6.8	139	0.53	14.1	1.1	FALSE	0.1
8/21/2003	1:15	8/21/2003 01:15	26.7	6.8	139	0.53	14.7	1.2	FALSE	0.1
8/21/2003	1:30	8/21/2003 01:30	26.7	6.8	139	0.53	13.8	1.1	FALSE	0.1
8/21/2003	1:45	8/21/2003 01:45	26.7	6.8	140	0.53	12.9	1	FALSE	0.1
8/21/2003	2:00	8/21/2003 02:00	26.7	6.8	140	0.54	12.7	1	FALSE	0.1
8/21/2003	2:15	8/21/2003 02:15	26.7	6.8	141	0.54	11.7	0.9	FALSE	0.1
8/21/2003	2:30	8/21/2003 02:30	26.7	6.8	141	0.55	11.1	0.9	FALSE	0.1
8/21/2003	2:45	8/21/2003 02:45	26.7	6.8	142	0.55	9.7	0.8	FALSE	0.1
8/21/2003	3:00	8/21/2003 03:00	26.6	6.8	142	0.55	9.3	0.7	FALSE	0.1
8/21/2003	3:15	8/21/2003 03:15	26.6	6.8	142	0.55	8.7	0.7	FALSE	0.1
8/21/2003	3:30	8/21/2003 03:30	26.6	6.8	143	0.55	8.2	0.7	FALSE	0.1
8/21/2003	3:45	8/21/2003 03:45	26.6	6.8	144	0.55	7.2	0.6	FALSE	0.1
8/21/2003	4:00	8/21/2003 04:00	26.6	6.8	144	0.55	6.7	0.5	FALSE	0.1
8/21/2003	4:15	8/21/2003 04:15	26.6	6.8	145	0.56	6.1	0.5	FALSE	0.1
8/21/2003	4:30	8/21/2003 04:30	26.6	6.8	145	0.56	5.4	0.4	FALSE	0.1
8/21/2003	4:45	8/21/2003 04:45	26.5	6.8	145	0.57	5.4	0.4	FALSE	0.1
8/21/2003	5:00	8/21/2003 05:00	26.5	6.8	144	0.58	5.1	0.4	FALSE	0.1
8/21/2003	5:15	8/21/2003 05:15	26.5	6.8	144	0.59	5.3	0.4	FALSE	0.1
8/21/2003	5:30	8/21/2003 05:30	26.5	6.8	145	0.59	4.4	0.4	FALSE	0.1
8/21/2003	5:45	8/21/2003 05:45	26.5	6.8	145	0.6	3.9	0.3	FALSE	0.1
8/21/2003	6:00	8/21/2003 06:00	26.4	6.8	145	0.6	4.1	0.3	FALSE	0.1
8/21/2003	6:15	8/21/2003 06:15	26.4	6.8	145	0.61	4.3	0.4	FALSE	0.1
8/21/2003	6:30	8/21/2003 06:30	26.4	6.8	146	0.61	4	0.3	FALSE	0.1
8/21/2003	6:45	8/21/2003 06:45	26.4	6.8	146	0.61	3.9	0.3	FALSE	0.1
8/21/2003	7:00	8/21/2003 07:00	26.4	6.8	147	0.62	3.9	0.3	FALSE	0.1
8/21/2003	7:15	8/21/2003 07:15	26.4	6.8	147	0.62	3.8	0.3	FALSE	0.1
8/21/2003	7:30	8/21/2003 07:30	26.4	6.8	147	0.62	3.9	0.3	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

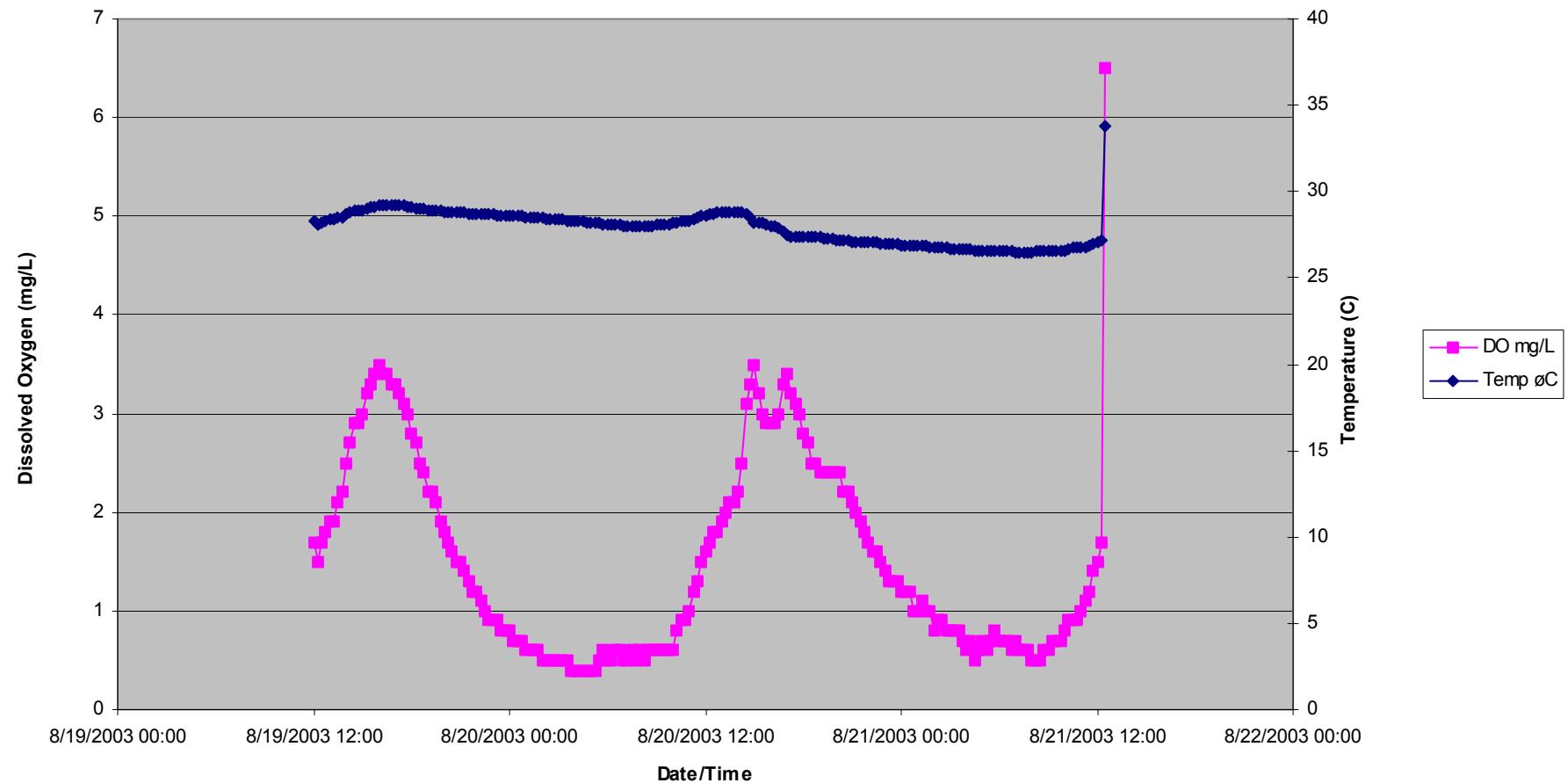
Revised: December 17, 2004

Revised: January 7, 2005

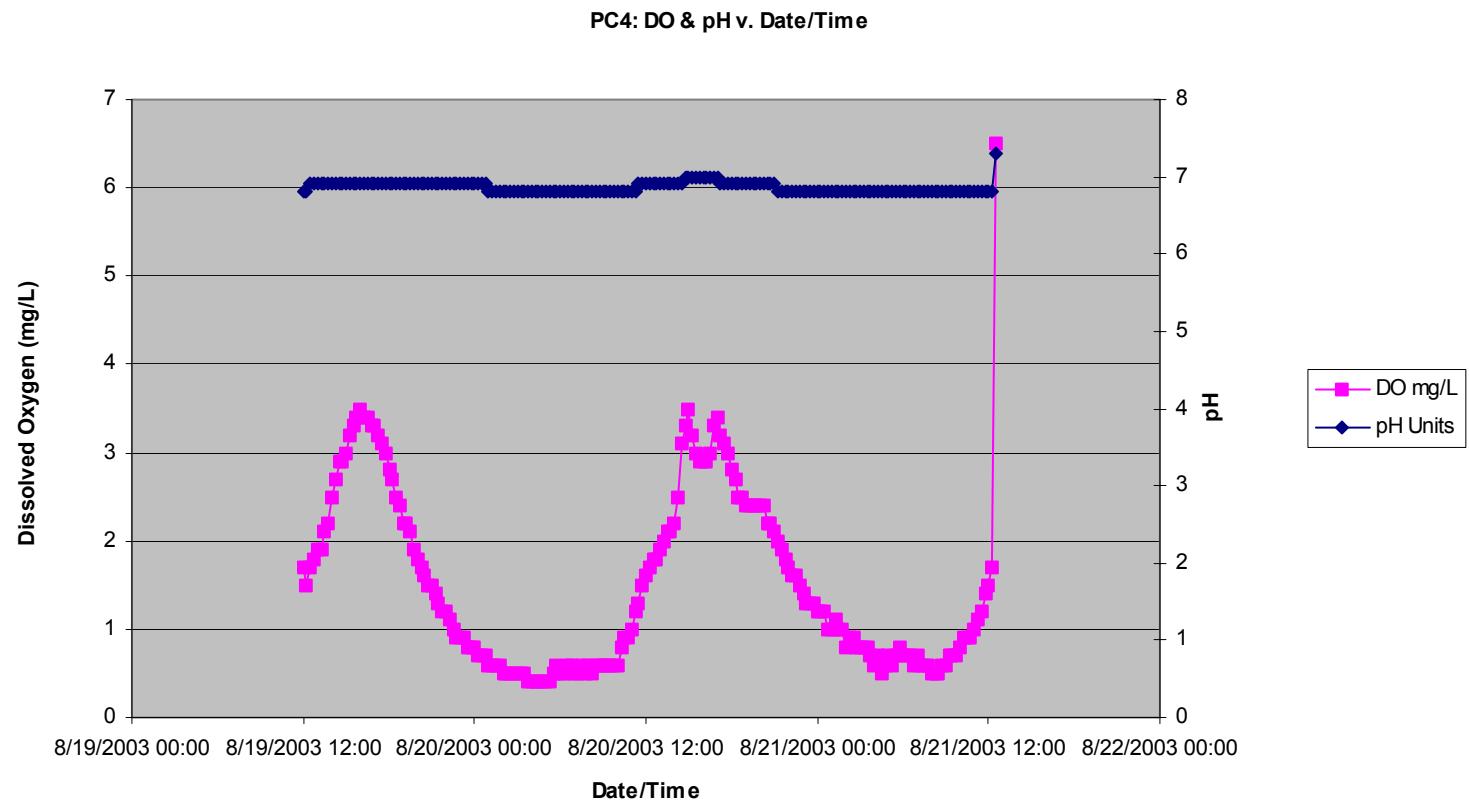
8/21/2003	7:45	8/21/2003 07:45	26.4	6.8	148	0.63	3.8	0.3	FALSE	0.1
8/21/2003	8:00	8/21/2003 08:00	26.4	6.8	148	0.63	3.9	0.3	FALSE	0.1
8/21/2003	8:15	8/21/2003 08:15	26.4	6.8	149	0.63	4.2	0.3	FALSE	0.1
8/21/2003	8:30	8/21/2003 08:30	26.4	6.8	149	0.64	3.7	0.3	FALSE	0.1
8/21/2003	8:45	8/21/2003 08:45	26.4	6.8	150	0.63	2.8	0.2	FALSE	0.1
8/21/2003	9:00	8/21/2003 09:00	26.4	6.8	149	0.62	3.8	0.3	FALSE	0.1
8/21/2003	9:15	8/21/2003 09:15	26.4	6.8	149	0.62	4.2	0.3	FALSE	0.1
8/21/2003	9:30	8/21/2003 09:30	26.4	6.8	148	0.62	6.8	0.6	FALSE	0.1
8/21/2003	9:45	8/21/2003 09:45	26.5	6.8	147	0.61	9.5	0.8	FALSE	0.1
8/21/2003	10:00	8/21/2003 10:00	26.6	6.8	147	0.61	10.9	0.9	FALSE	0.1
8/21/2003	10:15	8/21/2003 10:15	26.7	6.8	147	0.6	11.8	1	FALSE	0.1
8/21/2003	10:30	8/21/2003 10:30	26.7	6.8	147	0.6	13	1	FALSE	0.1
8/21/2003	10:45	8/21/2003 10:45	26.8	6.8	147	0.6	13.1	1.1	FALSE	0.1
8/21/2003	11:00	8/21/2003 11:00	26.8	6.8	148	0.6	13.3	1.1	FALSE	0.1
8/21/2003	11:15	8/21/2003 11:15	26.8	6.8	148	0.6	13.1	1.1	FALSE	0.1
8/21/2003	11:30	8/21/2003 11:30	26.9	6.9	148	0.6	15.1	1.2	FALSE	0.1
8/21/2003	11:45	8/21/2003 11:45	27	6.9	148	0.6	16.9	1.4	FALSE	0.1
8/21/2003	12:00	8/21/2003 12:00	27.1	6.9	149	0.6	19.3	1.5	FALSE	0.1
			27.7	6.89	182.96	0.5945	15.7	1.26		0.1
			Temp	pH	cond	depth	DO	DO		Salinity
						Sat				

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC4: DO & Temp v. Date/Time



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Date MMDDYY	Time HHMM	Date+Time MMDDYYYY HHMM	Temp °C	pH	SpCond µS/cm	DO% Sat	DO mg/L	VENTED DEPTH True/False	SALINITY ppt
8/19/2003	12:00	8/19/2003 12:00	28.3	6.8	191	21.3	1.7	FALSE	0.1
8/19/2003	12:15	8/19/2003 12:15	28.1	6.8	190	18.7	1.5	FALSE	0.1
8/19/2003	12:30	8/19/2003 12:30	28.2	6.9	191	21.2	1.7	FALSE	0.1
8/19/2003	12:45	8/19/2003 12:45	28.3	6.9	192	23.3	1.8	FALSE	0.1
8/19/2003	13:00	8/19/2003 13:00	28.4	6.9	192	24.6	1.9	FALSE	0.1
8/19/2003	13:15	8/19/2003 13:15	28.4	6.9	192	25	1.9	FALSE	0.1
8/19/2003	13:30	8/19/2003 13:30	28.5	6.9	192	26.9	2.1	FALSE	0.1
8/19/2003	13:45	8/19/2003 13:45	28.5	6.9	193	28.6	2.2	FALSE	0.1
8/19/2003	14:00	8/19/2003 14:00	28.7	6.9	194	32.6	2.5	FALSE	0.1
8/19/2003	14:15	8/19/2003 14:15	28.8	6.9	195	34.7	2.7	FALSE	0.1
8/19/2003	14:30	8/19/2003 14:30	28.9	6.9	197	37.2	2.9	FALSE	0.1
8/19/2003	14:45	8/19/2003 14:45	28.9	6.9	197	38	2.9	FALSE	0.1
8/19/2003	15:00	8/19/2003 15:00	28.9	6.9	197	39.4	3	FALSE	0.1
8/19/2003	15:15	8/19/2003 15:15	29	6.9	198	41.6	3.2	FALSE	0.1
8/19/2003	15:30	8/19/2003 15:30	29.1	6.9	197	43.4	3.3	FALSE	0.1
8/19/2003	15:45	8/19/2003 15:45	29.1	6.9	198	43.7	3.4	FALSE	0.1
8/19/2003	16:00	8/19/2003 16:00	29.2	6.9	199	45.6	3.5	FALSE	0.1
8/19/2003	16:15	8/19/2003 16:15	29.2	6.9	201	44.9	3.4	FALSE	0.1
8/19/2003	16:30	8/19/2003 16:30	29.2	6.9	202	43.8	3.4	FALSE	0.1
8/19/2003	16:45	8/19/2003 16:45	29.2	6.9	203	43.3	3.3	FALSE	0.1
8/19/2003	17:00	8/19/2003 17:00	29.2	6.9	204	42.4	3.3	FALSE	0.1
8/19/2003	17:15	8/19/2003 17:15	29.2	6.9	205	41.1	3.2	FALSE	0.1
8/19/2003	17:30	8/19/2003 17:30	29.2	6.9	205	40.5	3.1	FALSE	0.1
8/19/2003	17:45	8/19/2003 17:45	29.1	6.9	205	38.8	3	FALSE	0.1
8/19/2003	18:00	8/19/2003 18:00	29.1	6.9	205	36.6	2.8	FALSE	0.1
8/19/2003	18:15	8/19/2003 18:15	29	6.9	206	35.1	2.7	FALSE	0.1
8/19/2003	18:30	8/19/2003 18:30	29	6.9	207	33	2.5	FALSE	0.1
8/19/2003	18:45	8/19/2003 18:45	29	6.9	207	31.5	2.4	FALSE	0.1
8/19/2003	19:00	8/19/2003 19:00	28.9	6.9	208	28.9	2.2	FALSE	0.1
8/19/2003	19:15	8/19/2003 19:15	28.9	6.9	209	28.1	2.2	FALSE	0.1
8/19/2003	19:30	8/19/2003 19:30	28.9	6.9	211	26.8	2.1	FALSE	0.1
8/19/2003	19:45	8/19/2003 19:45	28.9	6.9	212	24.5	1.9	FALSE	0.1
8/19/2003	20:00	8/19/2003 20:00	28.8	6.9	213	23.7	1.8	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/19/2003	20:15	8/19/2003 20:15	28.8	6.9	215	22.5	1.7	FALSE	0.1
8/19/2003	20:30	8/19/2003 20:30	28.8	6.9	216	20.8	1.6	FALSE	0.1
8/19/2003	20:45	8/19/2003 20:45	28.8	6.9	217	19.8	1.5	FALSE	0.1
8/19/2003	21:00	8/19/2003 21:00	28.8	6.9	216	18.8	1.5	FALSE	0.1
8/19/2003	21:15	8/19/2003 21:15	28.8	6.9	217	17.7	1.4	FALSE	0.1
8/19/2003	21:30	8/19/2003 21:30	28.7	6.9	217	16.6	1.3	FALSE	0.1
8/19/2003	21:45	8/19/2003 21:45	28.7	6.9	217	15.8	1.2	FALSE	0.1
8/19/2003	22:00	8/19/2003 22:00	28.7	6.9	216	15.2	1.2	FALSE	0.1
8/19/2003	22:15	8/19/2003 22:15	28.7	6.9	216	14.2	1.1	FALSE	0.1
8/19/2003	22:30	8/19/2003 22:30	28.7	6.9	215	13.3	1	FALSE	0.1
8/19/2003	22:45	8/19/2003 22:45	28.7	6.9	214	12.1	0.9	FALSE	0.1
8/19/2003	23:00	8/19/2003 23:00	28.7	6.9	214	11.9	0.9	FALSE	0.1
8/19/2003	23:15	8/19/2003 23:15	28.6	6.9	213	11.9	0.9	FALSE	0.1
8/19/2003	23:30	8/19/2003 23:30	28.6	6.9	214	10.8	0.8	FALSE	0.1
8/19/2003	23:45	8/19/2003 23:45	28.6	6.9	213	10	0.8	FALSE	0.1
8/20/2003	0:00	8/20/2003 00:00	28.6	6.9	213	9.9	0.8	FALSE	0.1
8/20/2003	0:15	8/20/2003 00:15	28.6	6.9	213	9.5	0.7	FALSE	0.1
8/20/2003	0:30	8/20/2003 00:30	28.6	6.9	213	9.2	0.7	FALSE	0.1
8/20/2003	0:45	8/20/2003 00:45	28.6	6.9	212	8.5	0.7	FALSE	0.1
8/20/2003	1:00	8/20/2003 01:00	28.5	6.8	213	7.7	0.6	FALSE	0.1
8/20/2003	1:15	8/20/2003 01:15	28.5	6.8	213	8.1	0.6	FALSE	0.1
8/20/2003	1:30	8/20/2003 01:30	28.5	6.8	213	8.2	0.6	FALSE	0.1
8/20/2003	1:45	8/20/2003 01:45	28.5	6.8	213	7.8	0.6	FALSE	0.1
8/20/2003	2:00	8/20/2003 02:00	28.5	6.8	213	6.3	0.5	FALSE	0.1
8/20/2003	2:15	8/20/2003 02:15	28.4	6.8	213	6.4	0.5	FALSE	0.1
8/20/2003	2:30	8/20/2003 02:30	28.4	6.8	213	6.7	0.5	FALSE	0.1
8/20/2003	2:45	8/20/2003 02:45	28.4	6.8	213	6.9	0.5	FALSE	0.1
8/20/2003	3:00	8/20/2003 03:00	28.4	6.8	213	6.5	0.5	FALSE	0.1
8/20/2003	3:15	8/20/2003 03:15	28.4	6.8	213	6.5	0.5	FALSE	0.1
8/20/2003	3:30	8/20/2003 03:30	28.3	6.8	213	6.4	0.5	FALSE	0.1
8/20/2003	3:45	8/20/2003 03:45	28.3	6.8	213	5.5	0.4	FALSE	0.1
8/20/2003	4:00	8/20/2003 04:00	28.3	6.8	213	5.7	0.4	FALSE	0.1
8/20/2003	4:15	8/20/2003 04:15	28.3	6.8	213	5.3	0.4	FALSE	0.1
8/20/2003	4:30	8/20/2003 04:30	28.3	6.8	213	5.5	0.4	FALSE	0.1
8/20/2003	4:45	8/20/2003 04:45	28.2	6.8	213	5.5	0.4	FALSE	0.1
8/20/2003	5:00	8/20/2003 05:00	28.2	6.8	214	4.9	0.4	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	5:15	8/20/2003 05:15	28.2	6.8	213	5.5	0.4	FALSE	0.1
8/20/2003	5:30	8/20/2003 05:30	28.2	6.8	214	6.4	0.5	FALSE	0.1
8/20/2003	5:45	8/20/2003 05:45	28.1	6.8	214	7.1	0.6	FALSE	0.1
8/20/2003	6:00	8/20/2003 06:00	28.1	6.8	214	6.5	0.5	FALSE	0.1
8/20/2003	6:15	8/20/2003 06:15	28.1	6.8	214	6.8	0.5	FALSE	0.1
8/20/2003	6:30	8/20/2003 06:30	28.1	6.8	215	7.3	0.6	FALSE	0.1
8/20/2003	6:45	8/20/2003 06:45	28.1	6.8	215	7.2	0.6	FALSE	0.1
8/20/2003	7:00	8/20/2003 07:00	28	6.8	215	6.4	0.5	FALSE	0.1
8/20/2003	7:15	8/20/2003 07:15	28	6.8	215	6.8	0.5	FALSE	0.1
8/20/2003	7:30	8/20/2003 07:30	28	6.8	215	7.1	0.6	FALSE	0.1
8/20/2003	7:45	8/20/2003 07:45	28	6.8	216	6.6	0.5	FALSE	0.1
8/20/2003	8:00	8/20/2003 08:00	28	6.8	216	7.1	0.6	FALSE	0.1
8/20/2003	8:15	8/20/2003 08:15	28	6.8	216	6.6	0.5	FALSE	0.1
8/20/2003	8:30	8/20/2003 08:30	28	6.8	215	7.1	0.6	FALSE	0.1
8/20/2003	8:45	8/20/2003 08:45	28	6.8	215	7.2	0.6	FALSE	0.1
8/20/2003	9:00	8/20/2003 09:00	28.1	6.8	215	7.4	0.6	FALSE	0.1
8/20/2003	9:15	8/20/2003 09:15	28.1	6.8	215	7.3	0.6	FALSE	0.1
8/20/2003	9:30	8/20/2003 09:30	28.1	6.8	215	7.5	0.6	FALSE	0.1
8/20/2003	9:45	8/20/2003 09:45	28.1	6.8	214	7.9	0.6	FALSE	0.1
8/20/2003	10:00	8/20/2003 10:00	28.2	6.8	214	8.2	0.6	FALSE	0.1
8/20/2003	10:15	8/20/2003 10:15	28.2	6.8	215	9.6	0.8	FALSE	0.1
8/20/2003	10:30	8/20/2003 10:30	28.3	6.8	214	11.2	0.9	FALSE	0.1
8/20/2003	10:45	8/20/2003 10:45	28.3	6.8	213	12	0.9	FALSE	0.1
8/20/2003	11:00	8/20/2003 11:00	28.3	6.8	213	12.7	1	FALSE	0.1
8/20/2003	11:15	8/20/2003 11:15	28.4	6.8	214	15.4	1.2	FALSE	0.1
8/20/2003	11:30	8/20/2003 11:30	28.5	6.9	214	17.2	1.3	FALSE	0.1
8/20/2003	11:45	8/20/2003 11:45	28.6	6.9	214	19.2	1.5	FALSE	0.1
8/20/2003	12:00	8/20/2003 12:00	28.6	6.9	214	20.7	1.6	FALSE	0.1
8/20/2003	12:15	8/20/2003 12:15	28.7	6.9	214	21.5	1.7	FALSE	0.1
8/20/2003	12:30	8/20/2003 12:30	28.7	6.9	214	23	1.8	FALSE	0.1
8/20/2003	12:45	8/20/2003 12:45	28.8	6.9	215	23.3	1.8	FALSE	0.1
8/20/2003	13:00	8/20/2003 13:00	28.8	6.9	215	24.5	1.9	FALSE	0.1
8/20/2003	13:15	8/20/2003 13:15	28.8	6.9	215	26.2	2	FALSE	0.1
8/20/2003	13:30	8/20/2003 13:30	28.8	6.9	215	27.4	2.1	FALSE	0.1
8/20/2003	13:45	8/20/2003 13:45	28.8	6.9	216	27.4	2.1	FALSE	0.1
8/20/2003	14:00	8/20/2003 14:00	28.8	6.9	217	29.1	2.2	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	14:15	8/20/2003	14:15	28.8	6.9	215	32.3	2.5	FALSE	0.1
8/20/2003	14:30	8/20/2003	14:30	28.7	6.9	213	39.5	3.1	FALSE	0.1
8/20/2003	14:45	8/20/2003	14:45	28.5	7	204	43.1	3.3	FALSE	0.1
8/20/2003	15:00	8/20/2003	15:00	28.2	7	201	44.3	3.5	FALSE	0.1
8/20/2003	15:15	8/20/2003	15:15	28.2	7	211	41.1	3.2	FALSE	0.1
8/20/2003	15:30	8/20/2003	15:30	28.2	7	216	37.9	3	FALSE	0.1
8/20/2003	15:45	8/20/2003	15:45	28.1	7	216	36.9	2.9	FALSE	0.1
8/20/2003	16:00	8/20/2003	16:00	28	7	212	36.5	2.9	FALSE	0.1
8/20/2003	16:15	8/20/2003	16:15	28	7	208	36.9	2.9	FALSE	0.1
8/20/2003	16:30	8/20/2003	16:30	27.9	7	200	38.6	3	FALSE	0.1
8/20/2003	16:45	8/20/2003	16:45	27.7	7	189	42.2	3.3	FALSE	0.1
8/20/2003	17:00	8/20/2003	17:00	27.5	7	183	42.7	3.4	FALSE	0.1
8/20/2003	17:15	8/20/2003	17:15	27.4	6.9	179	41	3.2	FALSE	0.1
8/20/2003	17:30	8/20/2003	17:30	27.4	6.9	179	39.2	3.1	FALSE	0.1
8/20/2003	17:45	8/20/2003	17:45	27.4	6.9	180	37.5	3	FALSE	0.1
8/20/2003	18:00	8/20/2003	18:00	27.4	6.9	181	35.5	2.8	FALSE	0.1
8/20/2003	18:15	8/20/2003	18:15	27.4	6.9	182	33.6	2.7	FALSE	0.1
8/20/2003	18:30	8/20/2003	18:30	27.4	6.9	184	31.6	2.5	FALSE	0.1
8/20/2003	18:45	8/20/2003	18:45	27.4	6.9	183	31.2	2.5	FALSE	0.1
8/20/2003	19:00	8/20/2003	19:00	27.4	6.9	182	30.4	2.4	FALSE	0.1
8/20/2003	19:15	8/20/2003	19:15	27.3	6.9	181	30.4	2.4	FALSE	0.1
8/20/2003	19:30	8/20/2003	19:30	27.3	6.9	180	30.6	2.4	FALSE	0.1
8/20/2003	19:45	8/20/2003	19:45	27.3	6.9	178	30.8	2.4	FALSE	0.1
8/20/2003	20:00	8/20/2003	20:00	27.2	6.9	176	30.4	2.4	FALSE	0.1
8/20/2003	20:15	8/20/2003	20:15	27.2	6.9	175	29.7	2.4	FALSE	0.1
8/20/2003	20:30	8/20/2003	20:30	27.2	6.9	176	27.8	2.2	FALSE	0.1
8/20/2003	20:45	8/20/2003	20:45	27.2	6.9	176	27.3	2.2	FALSE	0.1
8/20/2003	21:00	8/20/2003	21:00	27.1	6.9	176	26.3	2.1	FALSE	0.1
8/20/2003	21:15	8/20/2003	21:15	27.1	6.8	176	25.1	2	FALSE	0.1
8/20/2003	21:30	8/20/2003	21:30	27.1	6.8	176	23.3	1.9	FALSE	0.1
8/20/2003	21:45	8/20/2003	21:45	27.1	6.8	176	22.6	1.8	FALSE	0.1
8/20/2003	22:00	8/20/2003	22:00	27.1	6.8	177	21.1	1.7	FALSE	0.1
8/20/2003	22:15	8/20/2003	22:15	27.1	6.8	178	20	1.6	FALSE	0.1
8/20/2003	22:30	8/20/2003	22:30	27.1	6.8	177	19.9	1.6	FALSE	0.1
8/20/2003	22:45	8/20/2003	22:45	27	6.8	176	18.4	1.5	FALSE	0.1
8/20/2003	23:00	8/20/2003	23:00	27	6.8	176	17.5	1.4	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	23:15	8/20/2003 23:15	27	6.8	177	16.5	1.3	FALSE	0.1
8/20/2003	23:30	8/20/2003 23:30	27	6.8	177	15.8	1.3	FALSE	0.1
8/20/2003	23:45	8/20/2003 23:45	27	6.8	176	15.7	1.3	FALSE	0.1
8/21/2003	0:00	8/21/2003 00:00	26.9	6.8	175	14.6	1.2	FALSE	0.1
8/21/2003	0:15	8/21/2003 00:15	26.9	6.8	175	14.7	1.2	FALSE	0.1
8/21/2003	0:30	8/21/2003 00:30	26.9	6.8	175	14.5	1.2	FALSE	0.1
8/21/2003	0:45	8/21/2003 00:45	26.9	6.8	175	11.9	1	FALSE	0.1
8/21/2003	1:00	8/21/2003 01:00	26.9	6.8	174	12.3	1	FALSE	0.1
8/21/2003	1:15	8/21/2003 01:15	26.9	6.8	174	13.3	1.1	FALSE	0.1
8/21/2003	1:30	8/21/2003 01:30	26.9	6.8	174	12.3	1	FALSE	0.1
8/21/2003	1:45	8/21/2003 01:45	26.8	6.8	174	11.8	1	FALSE	0.1
8/21/2003	2:00	8/21/2003 02:00	26.8	6.8	175	9.5	0.8	FALSE	0.1
8/21/2003	2:15	8/21/2003 02:15	26.8	6.8	174	10.9	0.9	FALSE	0.1
8/21/2003	2:30	8/21/2003 02:30	26.8	6.8	175	11.3	0.9	FALSE	0.1
8/21/2003	2:45	8/21/2003 02:45	26.8	6.8	175	10.2	0.8	FALSE	0.1
8/21/2003	3:00	8/21/2003 03:00	26.7	6.8	175	10.3	0.8	FALSE	0.1
8/21/2003	3:15	8/21/2003 03:15	26.7	6.8	174	9.8	0.8	FALSE	0.1
8/21/2003	3:30	8/21/2003 03:30	26.7	6.8	174	9.3	0.8	FALSE	0.1
8/21/2003	3:45	8/21/2003 03:45	26.7	6.8	174	9.2	0.7	FALSE	0.1
8/21/2003	4:00	8/21/2003 04:00	26.7	6.8	174	7.9	0.6	FALSE	0.1
8/21/2003	4:15	8/21/2003 04:15	26.7	6.8	174	8.4	0.7	FALSE	0.1
8/21/2003	4:30	8/21/2003 04:30	26.6	6.8	174	6.7	0.5	FALSE	0.1
8/21/2003	4:45	8/21/2003 04:45	26.6	6.8	175	7.9	0.6	FALSE	0.1
8/21/2003	5:00	8/21/2003 05:00	26.6	6.8	176	8.4	0.7	FALSE	0.1
8/21/2003	5:15	8/21/2003 05:15	26.6	6.8	177	7.9	0.6	FALSE	0.1
8/21/2003	5:30	8/21/2003 05:30	26.6	6.8	178	8.5	0.7	FALSE	0.1
8/21/2003	5:45	8/21/2003 05:45	26.6	6.8	179	9.6	0.8	FALSE	0.1
8/21/2003	6:00	8/21/2003 06:00	26.6	6.8	179	9	0.7	FALSE	0.1
8/21/2003	6:15	8/21/2003 06:15	26.6	6.8	179	8.9	0.7	FALSE	0.1
8/21/2003	6:30	8/21/2003 06:30	26.6	6.8	148	8.7	0.7	FALSE	0.1
8/21/2003	6:45	8/21/2003 06:45	26.6	6.8	181	7.8	0.6	FALSE	0.1
8/21/2003	7:00	8/21/2003 07:00	26.5	6.8	181	8.2	0.7	FALSE	0.1
8/21/2003	7:15	8/21/2003 07:15	26.5	6.8	181	7.7	0.6	FALSE	0.1
8/21/2003	7:30	8/21/2003 07:30	26.5	6.8	182	7.2	0.6	FALSE	0.1
8/21/2003	7:45	8/21/2003 07:45	26.5	6.8	183	7.3	0.6	FALSE	0.1
8/21/2003	8:00	8/21/2003 08:00	26.5	6.8	184	6.5	0.5	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

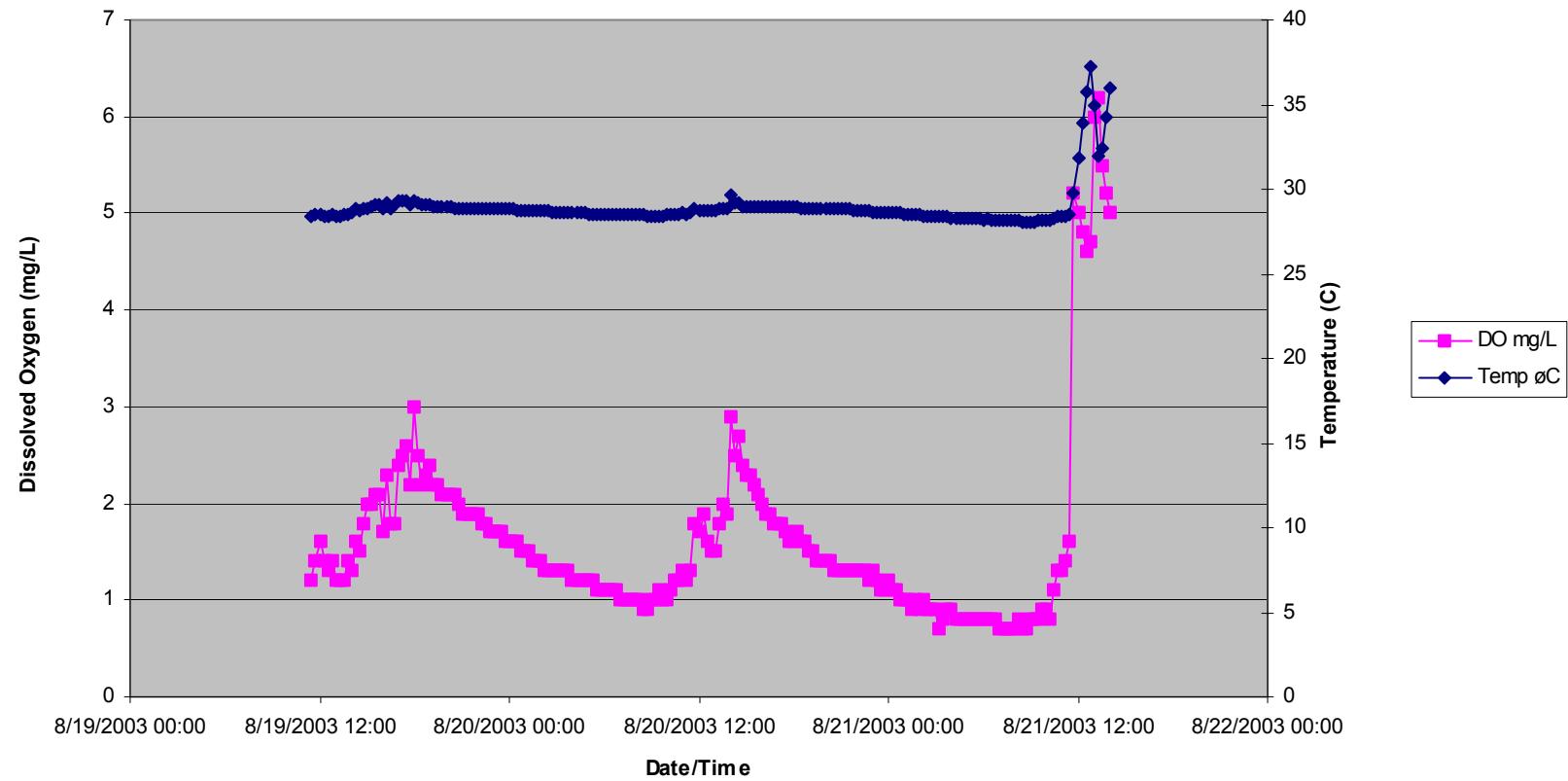
Revised: December 17, 2004

Revised: January 7, 2005

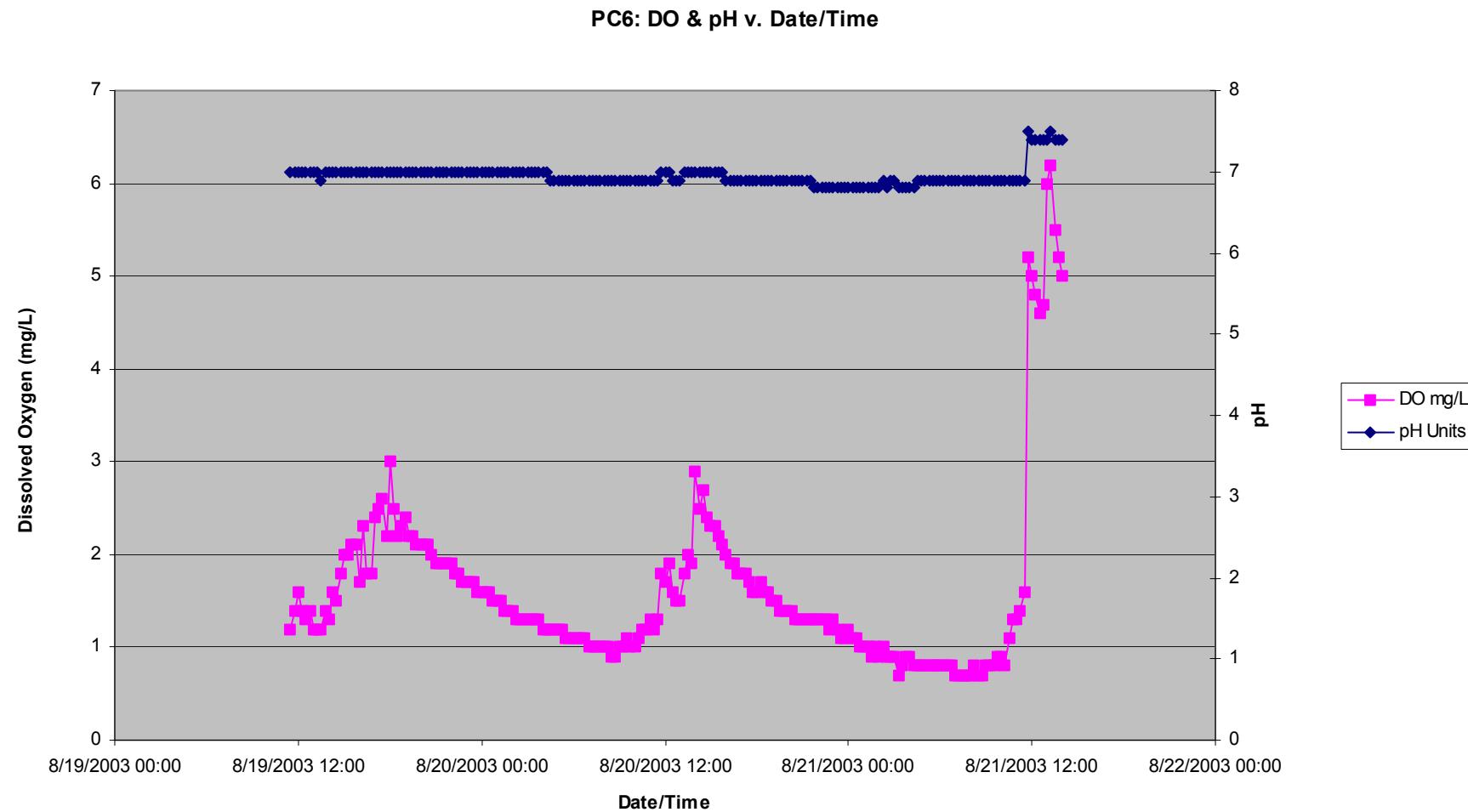
8/21/2003	8:15	8/21/2003 08:15	26.6	6.8	185	6.2	0.5	FALSE	0.1
8/21/2003	8:30	8/21/2003 08:30	26.6	6.8	161	6.5	0.5	FALSE	0.1
8/21/2003	8:45	8/21/2003 08:45	26.6	6.8	185	6.9	0.6	FALSE	0.1
8/21/2003	9:00	8/21/2003 09:00	26.6	6.8	184	7.9	0.6	FALSE	0.1
8/21/2003	9:15	8/21/2003 09:15	26.6	6.8	184	8.1	0.7	FALSE	0.1
8/21/2003	9:30	8/21/2003 09:30	26.6	6.8	183	8.3	0.7	FALSE	0.1
8/21/2003	9:45	8/21/2003 09:45	26.6	6.8	182	8.7	0.7	FALSE	0.1
8/21/2003	10:00	8/21/2003 10:00	26.6	6.8	181	10.1	0.8	FALSE	0.1
8/21/2003	10:15	8/21/2003 10:15	26.7	6.8	181	10.9	0.9	FALSE	0.1
8/21/2003	10:30	8/21/2003 10:30	26.8	6.8	180	11.8	0.9	FALSE	0.1
8/21/2003	10:45	8/21/2003 10:45	26.8	6.8	178	11.5	0.9	FALSE	0.1
8/21/2003	11:00	8/21/2003 11:00	26.8	6.8	178	12.4	1	FALSE	0.1
8/21/2003	11:15	8/21/2003 11:15	26.8	6.8	177	13.6	1.1	FALSE	0.1
8/21/2003	11:30	8/21/2003 11:30	26.9	6.8	177	14.6	1.2	FALSE	0.1
8/21/2003	11:45	8/21/2003 11:45	27	6.8	177	17	1.4	FALSE	0.1
8/21/2003	12:00	8/21/2003 12:00	27.1	6.8	176	18.8	1.5	FALSE	0.1
8/21/2003	12:15	8/21/2003 12:15	27.2	6.8	175	21.2	1.7	FALSE	0.1
8/21/2003	12:30	8/21/2003 12:30	33.8	7.3	202	91.8	6.5	FALSE	0.1
			27.9	6.85	196.71	19.3	1.51		0.1
			Temp	pH	Cond	DO	DO		Salinity
						Sat			

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC6: DO & Temp v. Date/Time

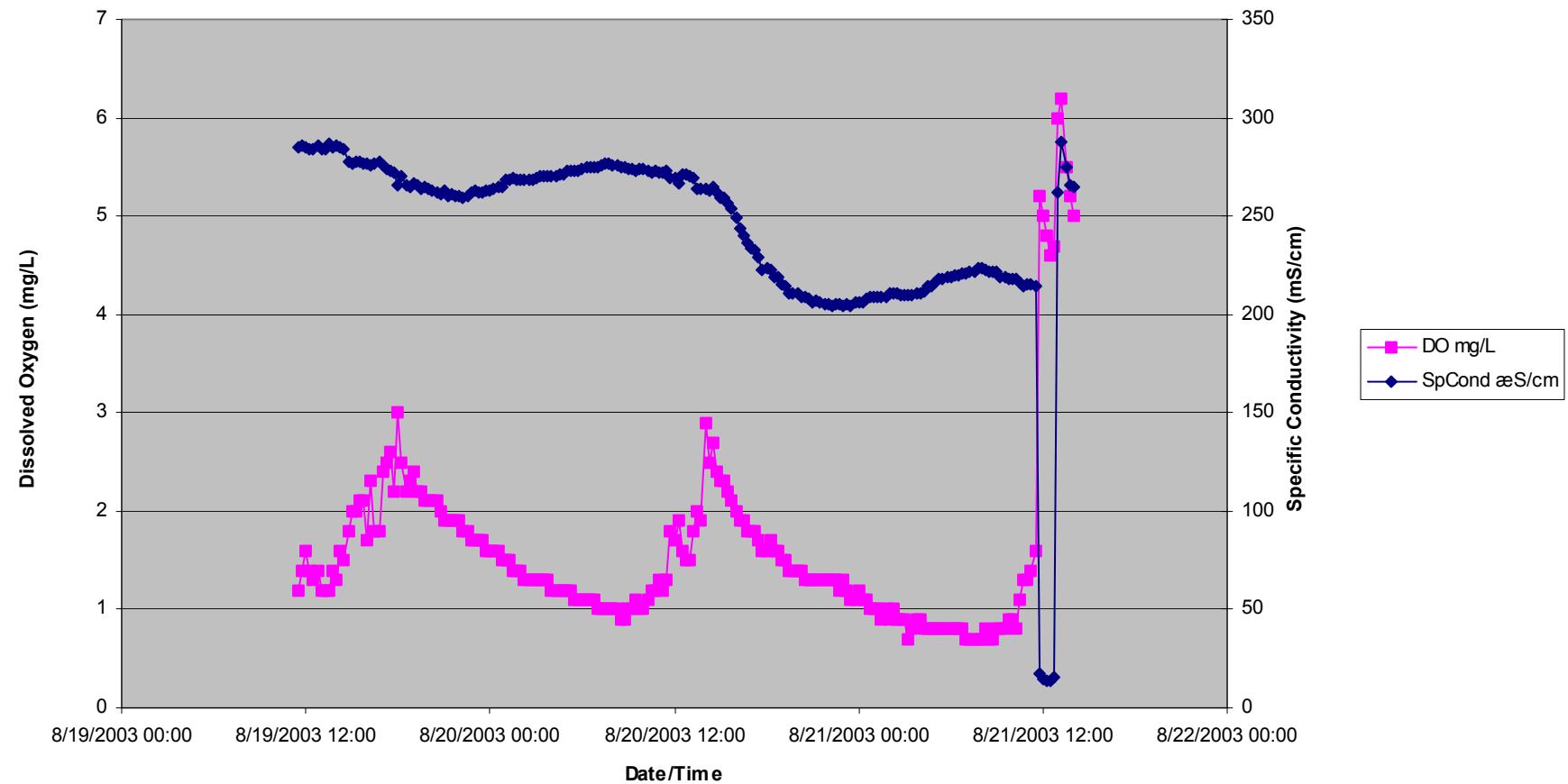


Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005



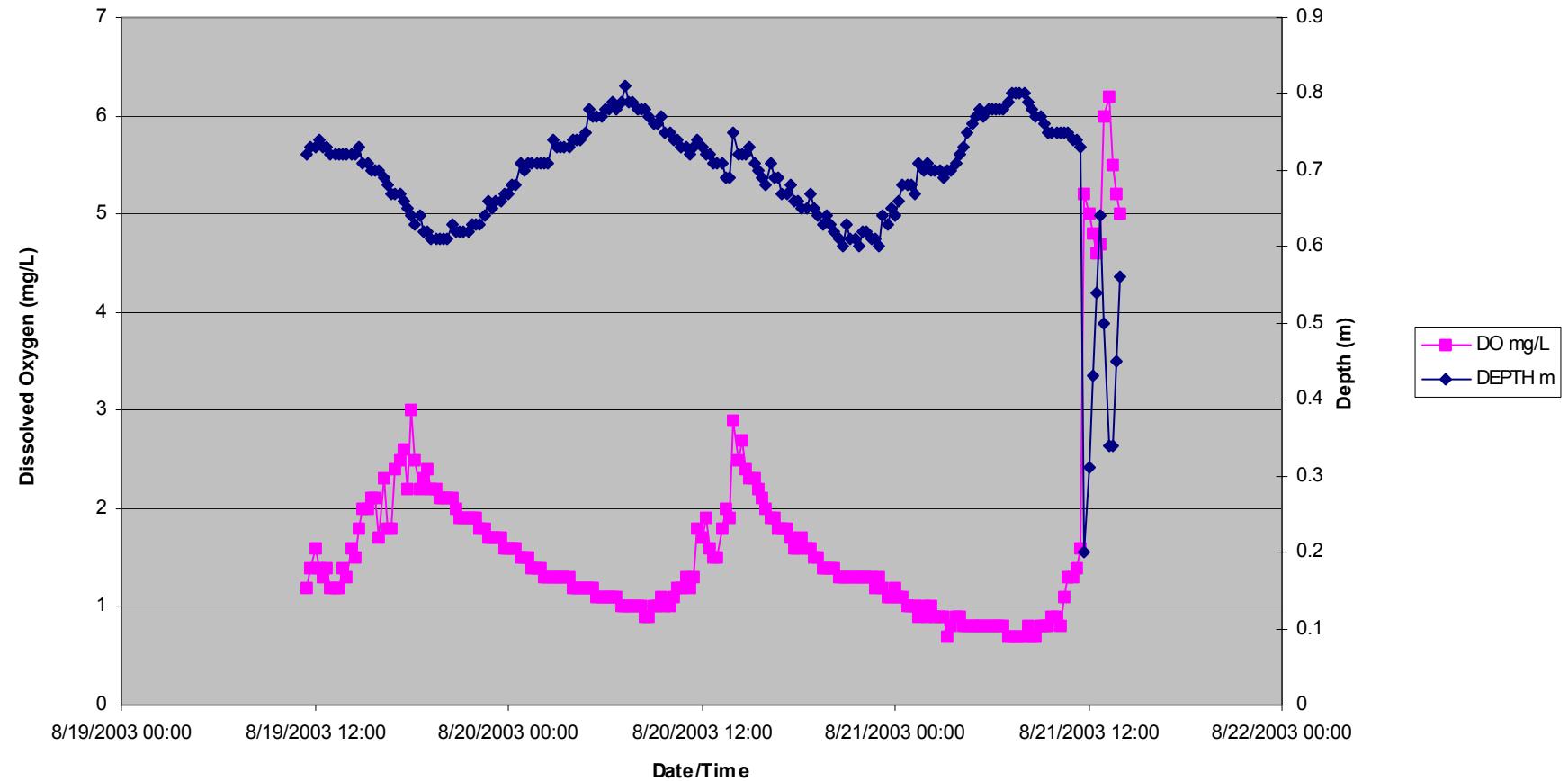
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC6: DO & SpCond v. Date/Time



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

PC6: DO & Depth v. Date/Time



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Date MMDDYY	Time HHMM	Date+Time MMDDYYYY HHMM	Temp °C	pH Units	SpCond µS/cm	DEPTH m	DO% Sat	DO mg/L	VENTED DEPTH True/False	SALINITY ppt
8/19/2003	11:30	8/19/2003 11:30	28.4	7	285	0.72	15.7	1.2	FALSE	0.1
8/19/2003	11:45	8/19/2003 11:45	28.5	7	286	0.73	17.4	1.4	FALSE	0.1
8/19/2003	12:00	8/19/2003 12:00	28.5	7	285	0.73	20	1.6	FALSE	0.1
8/19/2003	12:15	8/19/2003 12:15	28.4	7	284	0.74	18	1.4	FALSE	0.1
8/19/2003	12:30	8/19/2003 12:30	28.4	7	284	0.73	17	1.3	FALSE	0.1
8/19/2003	12:45	8/19/2003 12:45	28.5	7	286	0.73	18	1.4	FALSE	0.1
8/19/2003	13:00	8/19/2003 13:00	28.4	7	284	0.72	15.3	1.2	FALSE	0.1
8/19/2003	13:15	8/19/2003 13:15	28.4	7	284	0.72	15.5	1.2	FALSE	0.1
8/19/2003	13:30	8/19/2003 13:30	28.5	6.9	287	0.72	16	1.2	FALSE	0.1
8/19/2003	13:45	8/19/2003 13:45	28.5	7	285	0.72	17.4	1.4	FALSE	0.1
8/19/2003	14:00	8/19/2003 14:00	28.6	7	286	0.72	16.9	1.3	FALSE	0.1
8/19/2003	14:15	8/19/2003 14:15	28.8	7	285	0.72	20.9	1.6	FALSE	0.1
8/19/2003	14:30	8/19/2003 14:30	28.7	7	284	0.72	19.6	1.5	FALSE	0.1
8/19/2003	14:45	8/19/2003 14:45	28.9	7	278	0.73	22.9	1.8	FALSE	0.1
8/19/2003	15:00	8/19/2003 15:00	28.9	7	277	0.71	26.2	2	FALSE	0.1
8/19/2003	15:15	8/19/2003 15:15	29	7	278	0.71	25.4	2	FALSE	0.1
8/19/2003	15:30	8/19/2003 15:30	29.1	7	278	0.7	26.8	2.1	FALSE	0.1
8/19/2003	15:45	8/19/2003 15:45	29.1	7	277	0.7	27.1	2.1	FALSE	0.1
8/19/2003	16:00	8/19/2003 16:00	28.9	7	277	0.7	22.2	1.7	FALSE	0.1
8/19/2003	16:15	8/19/2003 16:15	29.2	7	276	0.69	30.6	2.3	FALSE	0.1
8/19/2003	16:30	8/19/2003 16:30	28.9	7	277	0.68	22.8	1.8	FALSE	0.1
8/19/2003	16:45	8/19/2003 16:45	29.1	7	278	0.67	23.5	1.8	FALSE	0.1
8/19/2003	17:00	8/19/2003 17:00	29.3	7	276	0.67	31.2	2.4	FALSE	0.1
8/19/2003	17:15	8/19/2003 17:15	29.3	7	274	0.67	33	2.5	FALSE	0.1
8/19/2003	17:30	8/19/2003 17:30	29.3	7	273	0.66	33.9	2.6	FALSE	0.1
8/19/2003	17:45	8/19/2003 17:45	29.1	7	272	0.65	29.1	2.2	FALSE	0.1
8/19/2003	18:00	8/19/2003 18:00	29.3	7	266	0.64	38.7	3	FALSE	0.1
8/19/2003	18:15	8/19/2003 18:15	29.2	7	270	0.63	32.8	2.5	FALSE	0.1
8/19/2003	18:30	8/19/2003 18:30	29.1	7	266	0.64	28.1	2.2	FALSE	0.1
8/19/2003	18:45	8/19/2003 18:45	29.1	7	265	0.62	30.2	2.3	FALSE	0.1
8/19/2003	19:00	8/19/2003 19:00	29.1	7	267	0.62	31	2.4	FALSE	0.1
8/19/2003	19:15	8/19/2003 19:15	29	7	266	0.61	29.1	2.2	FALSE	0.1
8/19/2003	19:30	8/19/2003 19:30	29	7	264	0.61	28.4	2.2	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/19/2003	19:45	8/19/2003 19:45	29	7	265	0.61	27.5	2.1	FALSE	0.1
8/19/2003	20:00	8/19/2003 20:00	29	7	264	0.61	27.9	2.1	FALSE	0.1
8/19/2003	20:15	8/19/2003 20:15	29	7	263	0.61	27.1	2.1	FALSE	0.1
8/19/2003	20:30	8/19/2003 20:30	28.9	7	262	0.63	26.7	2.1	FALSE	0.1
8/19/2003	20:45	8/19/2003 20:45	28.9	7	261	0.62	26.4	2	FALSE	0.1
8/19/2003	21:00	8/19/2003 21:00	28.9	7	263	0.62	24.8	1.9	FALSE	0.1
8/19/2003	21:15	8/19/2003 21:15	28.9	7	260	0.62	24.9	1.9	FALSE	0.1
8/19/2003	21:30	8/19/2003 21:30	28.9	7	261	0.62	24.2	1.9	FALSE	0.1
8/19/2003	21:45	8/19/2003 21:45	28.9	7	260	0.63	24.5	1.9	FALSE	0.1
8/19/2003	22:00	8/19/2003 22:00	28.9	7	260	0.63	24.2	1.9	FALSE	0.1
8/19/2003	22:15	8/19/2003 22:15	28.8	7	259	0.63	23.9	1.8	FALSE	0.1
8/19/2003	22:30	8/19/2003 22:30	28.8	7	260	0.64	22.7	1.8	FALSE	0.1
8/19/2003	22:45	8/19/2003 22:45	28.8	7	262	0.66	22.1	1.7	FALSE	0.1
8/19/2003	23:00	8/19/2003 23:00	28.8	7	263	0.65	22.3	1.7	FALSE	0.1
8/19/2003	23:15	8/19/2003 23:15	28.8	7	262	0.66	21.9	1.7	FALSE	0.1
8/19/2003	23:30	8/19/2003 23:30	28.8	7	262	0.66	21.6	1.7	FALSE	0.1
8/19/2003	23:45	8/19/2003 23:45	28.8	7	263	0.67	21	1.6	FALSE	0.1
8/20/2003	0:00	8/20/2003 00:00	28.8	7	263	0.67	21.2	1.6	FALSE	0.1
8/20/2003	0:15	8/20/2003 00:15	28.8	7	264	0.68	20.9	1.6	FALSE	0.1
8/20/2003	0:30	8/20/2003 00:30	28.7	7	265	0.68	20.2	1.6	FALSE	0.1
8/20/2003	0:45	8/20/2003 00:45	28.7	7	265	0.71	19.7	1.5	FALSE	0.1
8/20/2003	1:00	8/20/2003 01:00	28.7	7	268	0.7	18.9	1.5	FALSE	0.1
8/20/2003	1:15	8/20/2003 01:15	28.7	7	268	0.71	18.7	1.5	FALSE	0.1
8/20/2003	1:30	8/20/2003 01:30	28.7	7	269	0.71	18.4	1.4	FALSE	0.1
8/20/2003	1:45	8/20/2003 01:45	28.7	7	268	0.71	18.2	1.4	FALSE	0.1
8/20/2003	2:00	8/20/2003 02:00	28.7	7	268	0.71	18.1	1.4	FALSE	0.1
8/20/2003	2:15	8/20/2003 02:15	28.7	7	268	0.71	17.3	1.3	FALSE	0.1
8/20/2003	2:30	8/20/2003 02:30	28.7	7	268	0.71	17.3	1.3	FALSE	0.1
8/20/2003	2:45	8/20/2003 02:45	28.6	7	268	0.74	17.3	1.3	FALSE	0.1
8/20/2003	3:00	8/20/2003 03:00	28.6	7	269	0.73	16.9	1.3	FALSE	0.1
8/20/2003	3:15	8/20/2003 03:15	28.6	7	270	0.73	16.7	1.3	FALSE	0.1
8/20/2003	3:30	8/20/2003 03:30	28.6	7	270	0.73	16.3	1.3	FALSE	0.1
8/20/2003	3:45	8/20/2003 03:45	28.6	7	270	0.73	16.3	1.3	FALSE	0.1
8/20/2003	4:00	8/20/2003 04:00	28.6	7	270	0.74	15.9	1.2	FALSE	0.1
8/20/2003	4:15	8/20/2003 04:15	28.6	7	270	0.74	15.9	1.2	FALSE	0.1
8/20/2003	4:30	8/20/2003 04:30	28.6	6.9	271	0.74	15.6	1.2	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	4:45	8/20/2003 04:45	28.6	6.9	271	0.75	15.2	1.2	FALSE	0.1
8/20/2003	5:00	8/20/2003 05:00	28.5	6.9	273	0.78	15.3	1.2	FALSE	0.1
8/20/2003	5:15	8/20/2003 05:15	28.5	6.9	273	0.77	14.9	1.2	FALSE	0.1
8/20/2003	5:30	8/20/2003 05:30	28.5	6.9	273	0.77	14.7	1.1	FALSE	0.1
8/20/2003	5:45	8/20/2003 05:45	28.5	6.9	273	0.77	14.5	1.1	FALSE	0.1
8/20/2003	6:00	8/20/2003 06:00	28.5	6.9	274	0.78	14.5	1.1	FALSE	0.1
8/20/2003	6:15	8/20/2003 06:15	28.5	6.9	275	0.78	14.3	1.1	FALSE	0.1
8/20/2003	6:30	8/20/2003 06:30	28.5	6.9	275	0.79	14.1	1.1	FALSE	0.1
8/20/2003	6:45	8/20/2003 06:45	28.5	6.9	275	0.78	13.8	1.1	FALSE	0.1
8/20/2003	7:00	8/20/2003 07:00	28.5	6.9	275	0.79	13.4	1	FALSE	0.1
8/20/2003	7:15	8/20/2003 07:15	28.5	6.9	276	0.81	13.4	1	FALSE	0.1
8/20/2003	7:30	8/20/2003 07:30	28.5	6.9	277	0.79	12.6	1	FALSE	0.1
8/20/2003	7:45	8/20/2003 07:45	28.5	6.9	277	0.79	12.6	1	FALSE	0.1
8/20/2003	8:00	8/20/2003 08:00	28.5	6.9	276	0.78	12.8	1	FALSE	0.1
8/20/2003	8:15	8/20/2003 08:15	28.5	6.9	276	0.78	12.5	1	FALSE	0.1
8/20/2003	8:30	8/20/2003 08:30	28.5	6.9	275	0.78	12.1	0.9	FALSE	0.1
8/20/2003	8:45	8/20/2003 08:45	28.4	6.9	275	0.77	12.1	0.9	FALSE	0.1
8/20/2003	9:00	8/20/2003 09:00	28.4	6.9	274	0.76	12.8	1	FALSE	0.1
8/20/2003	9:15	8/20/2003 09:15	28.4	6.9	274	0.76	12.8	1	FALSE	0.1
8/20/2003	9:30	8/20/2003 09:30	28.4	6.9	273	0.77	13.5	1.1	FALSE	0.1
8/20/2003	9:45	8/20/2003 09:45	28.4	6.9	274	0.75	13.4	1	FALSE	0.1
8/20/2003	10:00	8/20/2003 10:00	28.5	6.9	274	0.75	13	1	FALSE	0.1
8/20/2003	10:15	8/20/2003 10:15	28.5	6.9	273	0.74	14.7	1.1	FALSE	0.1
8/20/2003	10:30	8/20/2003 10:30	28.5	6.9	272	0.74	16	1.2	FALSE	0.1
8/20/2003	10:45	8/20/2003 10:45	28.5	6.9	273	0.73	15.7	1.2	FALSE	0.1
8/20/2003	11:00	8/20/2003 11:00	28.6	6.9	272	0.73	17.2	1.3	FALSE	0.1
8/20/2003	11:15	8/20/2003 11:15	28.5	6.9	272	0.72	15.3	1.2	FALSE	0.1
8/20/2003	11:30	8/20/2003 11:30	28.6	6.9	273	0.73	16.1	1.3	FALSE	0.1
8/20/2003	11:45	8/20/2003 11:45	28.9	7	269	0.74	22.9	1.8	FALSE	0.1
8/20/2003	12:00	8/20/2003 12:00	28.7	7	269	0.73	21.5	1.7	FALSE	0.1
8/20/2003	12:15	8/20/2003 12:15	28.7	7	267	0.72	24.8	1.9	FALSE	0.1
8/20/2003	12:30	8/20/2003 12:30	28.7	6.9	271	0.72	20.5	1.6	FALSE	0.1
8/20/2003	12:45	8/20/2003 12:45	28.7	6.9	271	0.71	19.7	1.5	FALSE	0.1
8/20/2003	13:00	8/20/2003 13:00	28.7	6.9	270	0.71	19.7	1.5	FALSE	0.1
8/20/2003	13:15	8/20/2003 13:15	28.8	7	269	0.71	23.8	1.8	FALSE	0.1
8/20/2003	13:30	8/20/2003 13:30	28.8	7	264	0.69	26.3	2	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	13:45	8/20/2003 13:45	28.8	7	264	0.69	24.7	1.9	FALSE	0.1
8/20/2003	14:00	8/20/2003 14:00	29.6	7	264	0.75	37.7	2.9	FALSE	0.1
8/20/2003	14:15	8/20/2003 14:15	29.2	7	263	0.72	33.2	2.5	FALSE	0.1
8/20/2003	14:30	8/20/2003 14:30	29.2	7	265	0.72	34.6	2.7	FALSE	0.1
8/20/2003	14:45	8/20/2003 14:45	29	7	262	0.72	30.7	2.4	FALSE	0.1
8/20/2003	15:00	8/20/2003 15:00	29	7	259	0.73	29.8	2.3	FALSE	0.1
8/20/2003	15:15	8/20/2003 15:15	29	7	259	0.71	29.5	2.3	FALSE	0.1
8/20/2003	15:30	8/20/2003 15:30	29	7	257	0.7	29	2.2	FALSE	0.1
8/20/2003	15:45	8/20/2003 15:45	29	7	254	0.69	27.2	2.1	FALSE	0.1
8/20/2003	16:00	8/20/2003 16:00	29	6.9	249	0.68	25.8	2	FALSE	0.1
8/20/2003	16:15	8/20/2003 16:15	29	6.9	244	0.71	24.8	1.9	FALSE	0.1
8/20/2003	16:30	8/20/2003 16:30	29	6.9	240	0.69	24.7	1.9	FALSE	0.1
8/20/2003	16:45	8/20/2003 16:45	29	6.9	236	0.69	24	1.8	FALSE	0.1
8/20/2003	17:00	8/20/2003 17:00	29	6.9	234	0.67	23.7	1.8	FALSE	0.1
8/20/2003	17:15	8/20/2003 17:15	29	6.9	233	0.67	22.9	1.8	FALSE	0.1
8/20/2003	17:30	8/20/2003 17:30	29	6.9	229	0.68	22.1	1.7	FALSE	0.1
8/20/2003	17:45	8/20/2003 17:45	29	6.9	223	0.66	21.3	1.6	FALSE	0.1
8/20/2003	18:00	8/20/2003 18:00	29	6.9	224	0.66	21.3	1.6	FALSE	0.1
8/20/2003	18:15	8/20/2003 18:15	29	6.9	223	0.65	21.4	1.7	FALSE	0.1
8/20/2003	18:30	8/20/2003 18:30	28.9	6.9	219	0.65	20.6	1.6	FALSE	0.1
8/20/2003	18:45	8/20/2003 18:45	28.9	6.9	219	0.67	20.5	1.6	FALSE	0.1
8/20/2003	19:00	8/20/2003 19:00	28.9	6.9	215	0.65	19.6	1.5	FALSE	0.1
8/20/2003	19:15	8/20/2003 19:15	28.9	6.9	214	0.64	19.3	1.5	FALSE	0.1
8/20/2003	19:30	8/20/2003 19:30	28.9	6.9	211	0.63	18.1	1.4	FALSE	0.1
8/20/2003	19:45	8/20/2003 19:45	28.9	6.9	211	0.64	17.9	1.4	FALSE	0.1
8/20/2003	20:00	8/20/2003 20:00	28.9	6.9	211	0.63	18.3	1.4	FALSE	0.1
8/20/2003	20:15	8/20/2003 20:15	28.9	6.9	209	0.62	17.7	1.4	FALSE	0.1
8/20/2003	20:30	8/20/2003 20:30	28.8	6.9	209	0.61	17.3	1.3	FALSE	0.1
8/20/2003	20:45	8/20/2003 20:45	28.8	6.9	208	0.6	17.2	1.3	FALSE	0.1
8/20/2003	21:00	8/20/2003 21:00	28.8	6.9	206	0.63	16.9	1.3	FALSE	0.1
8/20/2003	21:15	8/20/2003 21:15	28.8	6.9	207	0.61	17.1	1.3	FALSE	0.1
8/20/2003	21:30	8/20/2003 21:30	28.8	6.9	206	0.61	16.7	1.3	FALSE	0.1
8/20/2003	21:45	8/20/2003 21:45	28.7	6.8	205	0.6	17.1	1.3	FALSE	0.1
8/20/2003	22:00	8/20/2003 22:00	28.7	6.8	205	0.62	16.2	1.3	FALSE	0.1
8/20/2003	22:15	8/20/2003 22:15	28.7	6.8	204	0.62	16.4	1.3	FALSE	0.1
8/20/2003	22:30	8/20/2003 22:30	28.7	6.8	205	0.61	16.2	1.3	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/20/2003	22:45	8/20/2003 22:45	28.7	6.8	205	0.61	15.9	1.2	FALSE	0.1
8/20/2003	23:00	8/20/2003 23:00	28.6	6.8	204	0.6	16.4	1.3	FALSE	0.1
8/20/2003	23:15	8/20/2003 23:15	28.6	6.8	205	0.64	15.3	1.2	FALSE	0.1
8/20/2003	23:30	8/20/2003 23:30	28.6	6.8	204	0.63	14.6	1.1	FALSE	0.1
8/20/2003	23:45	8/20/2003 23:45	28.6	6.8	206	0.65	14.2	1.1	FALSE	0.1
8/21/2003	0:00	8/21/2003 00:00	28.6	6.8	206	0.64	14.9	1.2	FALSE	0.1
8/21/2003	0:15	8/21/2003 00:15	28.6	6.8	206	0.66	14	1.1	FALSE	0.1
8/21/2003	0:30	8/21/2003 00:30	28.6	6.8	208	0.68	13.6	1.1	FALSE	0.1
8/21/2003	0:45	8/21/2003 00:45	28.6	6.8	209	0.68	13.2	1	FALSE	0.1
8/21/2003	1:00	8/21/2003 01:00	28.5	6.8	209	0.68	13.3	1	FALSE	0.1
8/21/2003	1:15	8/21/2003 01:15	28.5	6.8	209	0.67	12.5	1	FALSE	0.1
8/21/2003	1:30	8/21/2003 01:30	28.5	6.8	209	0.71	12.1	0.9	FALSE	0.1
8/21/2003	1:45	8/21/2003 01:45	28.5	6.8	209	0.7	12.3	1	FALSE	0.1
8/21/2003	2:00	8/21/2003 02:00	28.5	6.8	211	0.71	12.1	0.9	FALSE	0.1
8/21/2003	2:15	8/21/2003 02:15	28.4	6.9	211	0.7	12.2	1	FALSE	0.1
8/21/2003	2:30	8/21/2003 02:30	28.4	6.8	211	0.7	11.2	0.9	FALSE	0.1
8/21/2003	2:45	8/21/2003 02:45	28.4	6.9	210	0.7	12	0.9	FALSE	0.1
8/21/2003	3:00	8/21/2003 03:00	28.4	6.9	210	0.69	12.2	0.9	FALSE	0.1
8/21/2003	3:15	8/21/2003 03:15	28.4	6.8	210	0.7	9.4	0.7	FALSE	0.1
8/21/2003	3:30	8/21/2003 03:30	28.4	6.8	210	0.7	10.9	0.8	FALSE	0.1
8/21/2003	3:45	8/21/2003 03:45	28.4	6.8	211	0.71	11	0.9	FALSE	0.1
8/21/2003	4:00	8/21/2003 04:00	28.3	6.8	211	0.72	11.1	0.9	FALSE	0.1
8/21/2003	4:15	8/21/2003 04:15	28.3	6.8	212	0.73	10.6	0.8	FALSE	0.1
8/21/2003	4:30	8/21/2003 04:30	28.3	6.9	214	0.75	10.3	0.8	FALSE	0.1
8/21/2003	4:45	8/21/2003 04:45	28.3	6.9	214	0.76	10.2	0.8	FALSE	0.1
8/21/2003	5:00	8/21/2003 05:00	28.3	6.9	216	0.77	10.4	0.8	FALSE	0.1
8/21/2003	5:15	8/21/2003 05:15	28.3	6.9	218	0.78	10.4	0.8	FALSE	0.1
8/21/2003	5:30	8/21/2003 05:30	28.3	6.9	218	0.77	10.3	0.8	FALSE	0.1
8/21/2003	5:45	8/21/2003 05:45	28.3	6.9	219	0.78	10	0.8	FALSE	0.1
8/21/2003	6:00	8/21/2003 06:00	28.2	6.9	219	0.78	9.9	0.8	FALSE	0.1
8/21/2003	6:15	8/21/2003 06:15	28.3	6.9	220	0.78	9.7	0.8	FALSE	0.1
8/21/2003	6:30	8/21/2003 06:30	28.2	6.9	220	0.78	9.6	0.8	FALSE	0.1
8/21/2003	6:45	8/21/2003 06:45	28.2	6.9	221	0.78	9.6	0.8	FALSE	0.1
8/21/2003	7:00	8/21/2003 07:00	28.2	6.9	221	0.79	9.6	0.7	FALSE	0.1
8/21/2003	7:15	8/21/2003 07:15	28.2	6.9	222	0.8	9.4	0.7	FALSE	0.1
8/21/2003	7:30	8/21/2003 07:30	28.2	6.9	222	0.8	9.3	0.7	FALSE	0.1

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

8/21/2003	7:45	8/21/2003 07:45	28.2	6.9	224	0.8	9.4	0.7	FALSE	0.1
8/21/2003	8:00	8/21/2003 08:00	28.2	6.9	224	0.8	9.5	0.7	FALSE	0.1
8/21/2003	8:15	8/21/2003 08:15	28.2	6.9	223	0.79	9.6	0.8	FALSE	0.1
8/21/2003	8:30	8/21/2003 08:30	28.1	6.9	222	0.78	9.5	0.7	FALSE	0.1
8/21/2003	8:45	8/21/2003 08:45	28.1	6.9	222	0.77	9.5	0.7	FALSE	0.1
8/21/2003	9:00	8/21/2003 09:00	28.1	6.9	222	0.77	10.1	0.8	FALSE	0.1
8/21/2003	9:15	8/21/2003 09:15	28.1	6.9	219	0.76	10.6	0.8	FALSE	0.1
8/21/2003	9:30	8/21/2003 09:30	28.2	6.9	219	0.75	10.6	0.8	FALSE	0.1
8/21/2003	9:45	8/21/2003 09:45	28.2	6.9	218	0.75	11.3	0.9	FALSE	0.1
8/21/2003	10:00	8/21/2003 10:00	28.2	6.9	218	0.75	11.4	0.9	FALSE	0.1
8/21/2003	10:15	8/21/2003 10:15	28.2	6.9	218	0.75	10.7	0.8	FALSE	0.1
8/21/2003	10:30	8/21/2003 10:30	28.3	6.9	216	0.75	14.1	1.1	FALSE	0.1
8/21/2003	10:45	8/21/2003 10:45	28.4	6.9	214	0.75	16.6	1.3	FALSE	0.1
8/21/2003	11:00	8/21/2003 11:00	28.4	6.9	215	0.74	17.1	1.3	FALSE	0.1
8/21/2003	11:15	8/21/2003 11:15	28.4	6.9	215	0.74	18.1	1.4	FALSE	0.1
8/21/2003	11:30	8/21/2003 11:30	28.5	6.9	214	0.73	20.5	1.6	FALSE	0.1
8/21/2003	11:45	8/21/2003 11:45	29.8	7.5	17	0.2	69.1	5.2	FALSE	
8/21/2003	12:00	8/21/2003 12:00	31.8	7.4	15	0.31	67.7	5	FALSE	
8/21/2003	12:15	8/21/2003 12:15	33.9	7.4	14	0.43	67.2	4.8	FALSE	
8/21/2003	12:30	8/21/2003 12:30	35.8	7.4	14	0.54	67.4	4.6	FALSE	
8/21/2003	12:45	8/21/2003 12:45	37.2	7.4	16	0.64	69.5	4.7	FALSE	
8/21/2003	13:00	8/21/2003 13:00	34.9	7.4	262	0.5	86	6	FALSE	0.1
8/21/2003	13:15	8/21/2003 13:15	32	7.5	288	0.34	85.2	6.2	FALSE	0.1
8/21/2003	13:30	8/21/2003 13:30	32.4	7.4	275	0.34	75.7	5.5	FALSE	0.1
8/21/2003	13:45	8/21/2003 13:45	34.3	7.4	266	0.45	73.4	5.2	FALSE	0.1
8/21/2003	14:00	8/21/2003 14:00	36	7.4	265	0.56	72.7	5	FALSE	0.1
			28.92	6.95	243.08	0.6911	21.1546798	1.61		0.1
			Temp	pH	Cond	Depth	DO Sat	DO		Salinity

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix C5 – BOD Calculations

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

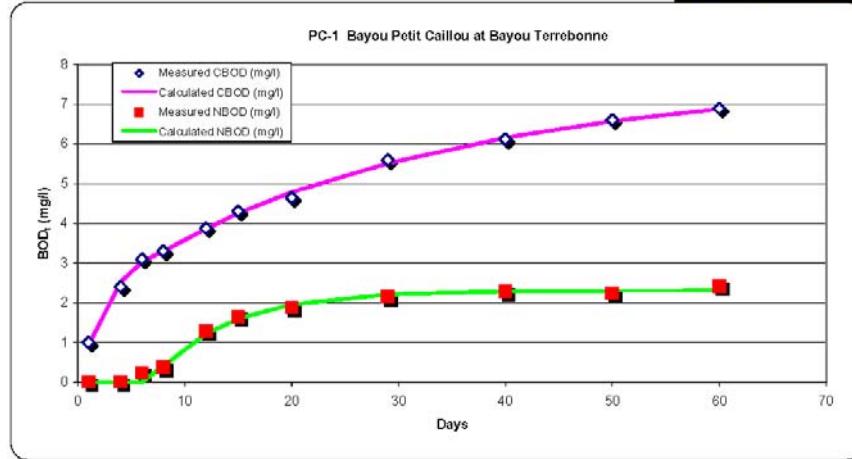
Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

	NBOD	CBOD1	CBOD2
UBOD (mg/l)	2.304359	3.6489582	4.06740284
k rate (1/day)	0.1413542	0.29375	0.03135417
Lag time (days)	6.6597219	0	9.43055534

Breakpoint = 6th day



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

Note 6 - Calculated from the formula $\{\text{NBOD} = \text{UNBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD} = \text{UCBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UCBOD, k decay rate and lag time.

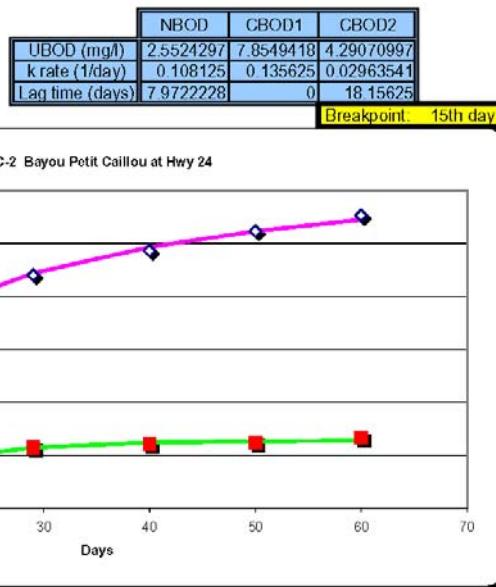
Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

Note 6 - Calculated from the formula $\{\text{NBOD} = \text{UNBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD} = \text{UCBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UCBOD, k decay rate and lag time.

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

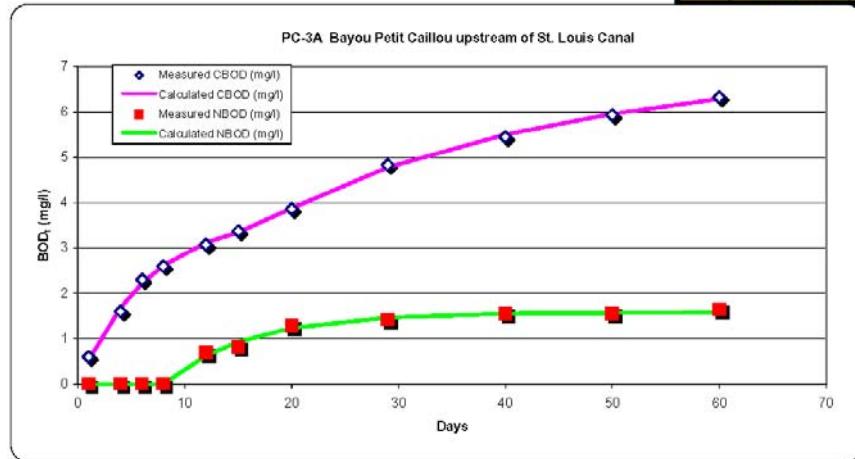
Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

	NBOD	CBOD1	CBOD2
UBOD (mg/l)	1.5747459	3.7332315	3.44423199
k rate (1/day)	0.12875	0.1505208	0.03135417
Lag time (days)	8.0694447	0	16.8194447

Breakpoint = 15th day



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

Note 6 - Calculated from the formula $\{\text{NBOD} = \text{UNBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD} = \text{UCBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UCBOD, k decay rate and lag time.

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

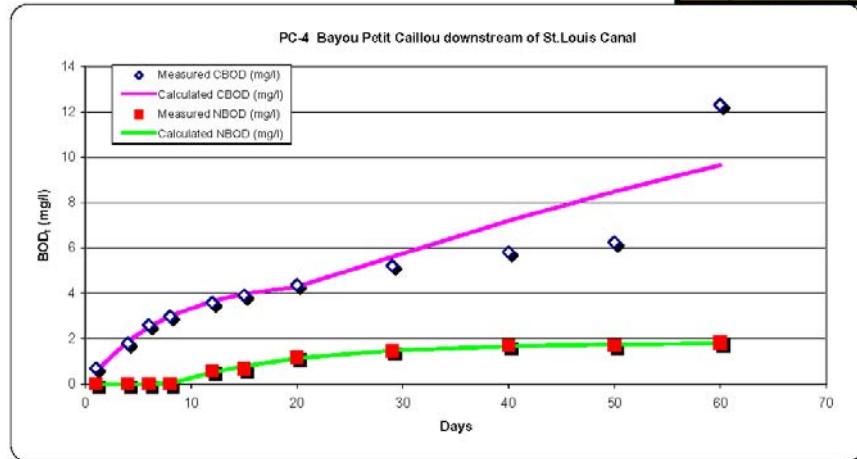
Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

	NBOD	CBOD1	CBOD2
UBOD (mg/l)	1.8131899	4.6369743	19.3852577
k rate (1/day)	0.080625	0.1298958	0.00782789
Lag time (days)	7.875	0	21.6724186

Breakpoint = 20th day



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

Note 6 - Calculated from the formula $\{\text{NBOD} = \text{UNBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD} = \text{UCBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UCBOD, k decay rate and lag time.

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

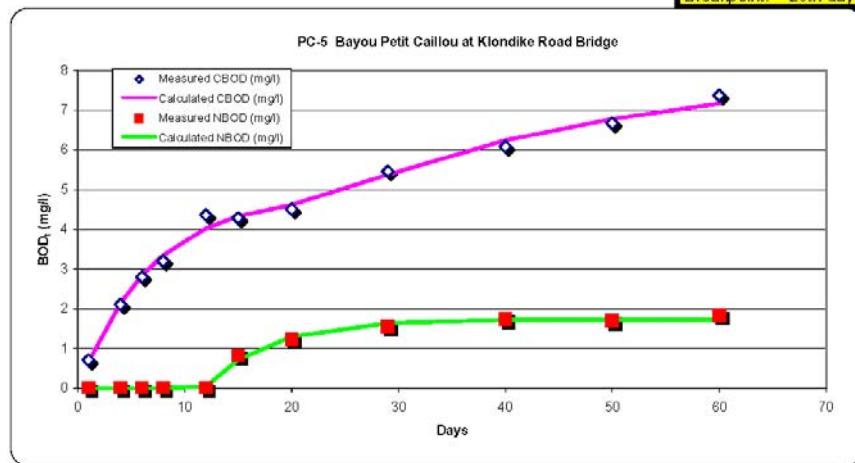
Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

	NBOD	CBOD1	CBOD2
UBOD (mg/l)	1.7285601	4.8853498	3.33932042
k rate (1/day)	0.17	0.1447917	0.03122685
Lag time (days)	11.861111	0	23.0760994

Breakpoint = 20th day



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

Note 6 - Calculated from the formula $\{\text{NBOD} = \text{UNBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD} = \text{UCBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UCBOD, k decay rate and lag time.

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

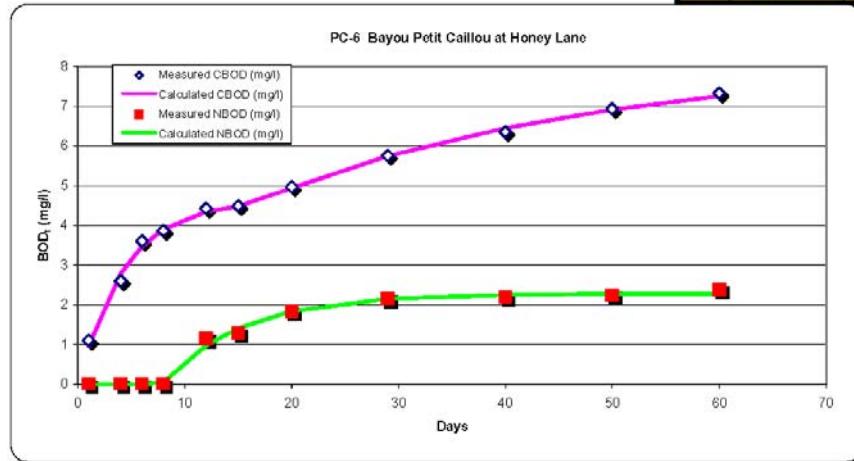
Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

	NBOD	CBOD1	CBOD2
UBOD (mg/l)	2.2746327	4.6350098	3.58972979
k rate (1/day)	0.135625	0.2295833	0.03020833
Lag time (days)	7.875	0	16.625

Breakpoint = 8th day



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

Note 6 - Calculated from the formula $\{\text{NBOD} = \text{UNBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD} = \text{UCBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UCBOD, k decay rate and lag time.

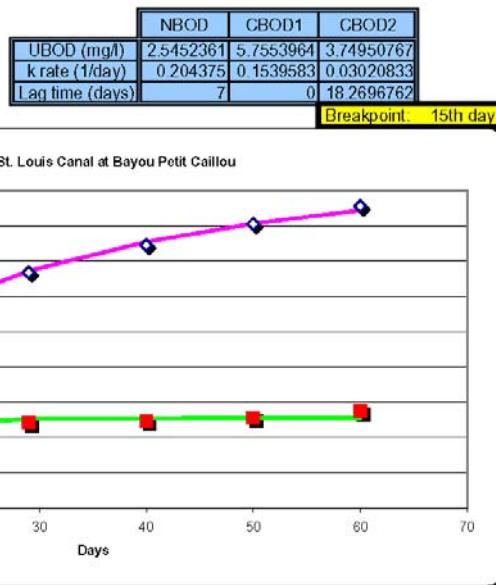
Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005



Note 1 - Days from the BOD test start date.

Note 2 - Measured total BOD at time in "Days" column.

Note 3 - Measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) at time in "Days" column.

Note 4 - Calculated by multiplying the measured ($\text{NO}_2 + \text{NO}_3$ as nitrogen) minus the day zero ($\text{NO}_2 + \text{NO}_3$ as nitrogen) by 4.57.

Note 5 - Determined by subtracting the calculated NBOD from the measured total BOD.

Note 6 - Calculated from the formula $\{\text{NBOD} = \text{UNBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UNBOD, k decay rate and lag time.

Note 7 - Calculated from the formula $\{\text{CBOD} = \text{UCBOD} [1 - e^{-\{k(t-\text{lag})\}}]\}$ using the listed values of UCBOD, k decay rate and lag time.

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Appendix C6 – Dye Study Calculations

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Bayou Petit Caillou Cross Section Summary

SITE	X	Y	WIDTH (feet)	WIDTH (meters)	DEPTH (feet)	DEPTH (meters)
Petit Caillou Dump			90.000	27.432	3.420	1.042
Petit Caillou Run 1 XS 1	3269905	730562	101.000	30.785	3.550	1.082
Petit Caillou Run 1 XS 2	3269778	730753	88.000	26.822	3.850	1.173
Petit Caillou Run 1 XS 3	3269666	730998	87.000	26.518	4.160	1.268
Petit Caillou Run 3 XS 1	3269547	731588	97.000	29.566	4.960	1.512
Petit Caillou Run 3 XS 2	3269394	731960	101.000	30.785	3.720	1.134
Petit Caillou Run 3 XS 3	3269242	732388	95.000	28.956	4.900	1.494
Average dye run 1			92.000	28.042	3.853	1.174
Average dye run 2			97.667	29.769	4.527	1.380

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Petit Caillou Dye Arc Table Calculations Page 1 of 2

Y	X	RUN	Value	RKM	Kilometers	Meters	TEMP	DATE	TIME	Date + Time	Run - Dump
					Distance from Dye	Distance from Dye					
3269939	730508	dump	.75 GAL	2.303				8/20/2003	8:01:04 AM	8/20/03 8:01	
3269676	730973	RUN 1 BG	0	1.766	0.533518954	533.5189541	29.1	8/20/2003	11:26:30 AM	8/20/03 11:26	0.142662
3269708	730895	RUN 1 01	2.65	1.851	0.449135088	449.1350879	29.1	8/20/2003	11:29:37 AM	8/20/03 11:29	0.144826
3269720	730869	RUN 1 02	10.91	1.88	0.420189186	420.1891861	29.2	8/20/2003	11:30:57 AM	8/20/03 11:30	0.145752
3269733	730836	RUN 1 03	32	1.915	0.384766983	384.766983	29.2	8/20/2003	11:32:16 AM	8/20/03 11:32	0.146667
3269749	730803	RUN 1 04	52.7	1.952	0.348057599	348.0575988	29.2	8/20/2003	11:33:51 AM	8/20/03 11:33	0.147766
3269762	730777	RUN 1 05	90.2	1.981	0.319053471	319.053471	29.2	8/20/2003	11:35:07 AM	8/20/03 11:35	0.148646
3269780	730745	RUN 1 06	103.6	2.018	0.282464217	282.4642169	29.1	8/20/2003	11:36:30 AM	8/20/03 11:36	0.149606
3269801	730709	RUN 1 07	103.6	2.059	0.241077266	241.0772664	29.1	8/20/2003	11:37:57 AM	8/20/03 11:37	0.150613
3269827	730672	RUN 1 08	89.5	2.105	0.195151551	195.1515508	29.2	8/20/2003	11:39:44 AM	8/20/03 11:39	0.151852
3269854	730639	RUN 1 09	53.5	2.147	0.152991805	152.9918053	29.2	8/20/2003	11:41:20 AM	8/20/03 11:41	0.152963
3269875	730608	RUN 1 10	17.7	2.184	0.115596427	115.5964274	29.2	8/20/2003	11:42:56 AM	8/20/03 11:42	0.154074
3269891	730583	RUN 1 11	8.02	2.214	0.08592889	85.92889023	29.2	8/20/2003	11:44:51 AM	8/20/03 11:44	0.155405
3269920	730538	RUN 1 12	0.1	2.267	0.032618555	32.61855469	29.2	8/20/2003	11:46:24 AM	8/20/03 11:46	0.156481
											Average Time
											0.149793
											Average Time in Hours
											3.595043
											Average Time in Seconds
											12942.153846

Bayou Petit Caillou Watershed TMDL
 Subsegment 120503
 Originated: November 21, 2004
 Revised: December 17, 2004
 Revised: January 7, 2005

Petit Caillou Dye Arc Table Calculations Page 2 of 2

Y	X	RUN	Kilometers		Meters		TEMP	DATE	TIME	Date + Time	Run - Dump
			Value	RKM	Distance	Distance					
					from Dye	from Dye					
3269189	732496	RUN 3 BG	0	0.15	2.150365058	2150.365058	29.1	8/20/2003	5:45:29 PM	8/20/03 17:45	0.405845
3269241	732384	RUN 3 01	1.732	0.274	2.026398217	2026.398217	29.1	8/20/2003	5:47:46 PM	8/20/03 17:47	0.407431
3269262	732328	RUN 3 02	3.49	0.336	1.964407393	1964.407393	29.1	8/20/2003	5:49:26 PM	8/20/03 17:49	0.408588
3269286	732259	RUN 3 03	7.4	0.407	1.89280358	1892.80358	29.1	8/20/2003	5:51:12 PM	8/20/03 17:51	0.409815
3269305	732206	RUN 3 04	11.07	0.465	1.835404785	1835.404785	29.1	8/20/2003	5:52:46 PM	8/20/03 17:52	0.410903
3269330	732146	RUN 3 05	14.3	0.529	1.771186528	1771.186528	29.1	8/20/2003	5:54:36 PM	8/20/03 17:54	0.412176
3269348	732075	RUN 3 06	13.5	0.603	1.697355962	1697.355962	29.1	8/20/2003	5:56:36 PM	8/20/03 17:56	0.413565
3269372	732029	RUN 3 07	16.5	0.655	1.645442217	1645.442217	29	8/20/2003	5:58:08 PM	8/20/03 17:58	0.414630
3269399	731965	RUN 3 08	17.2	0.724	1.575714649	1575.714649	29	8/20/2003	6:00:03 PM	8/20/03 18:00	0.415961
3269422	731914	RUN 3 09	17.1	0.78	1.51975038	1519.75038	29	8/20/2003	6:02:01 PM	8/20/03 18:02	0.417326
3269440	731864	RUN 3 10	16.7	0.833	1.466659295	1466.659295	29	8/20/2003	6:04:05 PM	8/20/03 18:04	0.418762
3269476	731784	RUN 3 11	14.3	0.921	1.378770339	1378.770339	29	8/20/2003	6:06:32 PM	8/20/03 18:06	0.420463
3269508	731695	RUN 3 12	12.4	1.016	1.283500156	1283.500156	28.9	8/20/2003	6:08:59 PM	8/20/03 18:08	0.422164
3269531	731630	RUN 3 13	9.6	1.086	1.214373912	1214.373912	28.8	8/20/2003	6:11:06 PM	8/20/03 18:11	0.423634
3269563	731558	RUN 3 14	6.99	1.165	1.135297285	1135.297285	28.8	8/20/2003	6:13:25 PM	8/20/03 18:13	0.425243
3269583	731504	RUN 3 15	6.14	1.222	1.077775737	1077.775737	28.8	8/20/2003	6:15:13 PM	8/20/03 18:15	0.426493
3269616	731394	RUN 3 16	3.53	1.338	0.962279641	962.2796413	28.6	8/20/2003	6:17:46 PM	8/20/03 18:17	0.428264
3269622	731339	RUN 3 17	2.83	1.393	0.906959439	906.9594394	28.6	8/20/2003	6:20:33 PM	8/20/03 18:20	0.430197
3269626	731262	RUN 3 18	2.49	1.471	0.829365652	829.3656515	28.6	8/20/2003	6:22:36 PM	8/20/03 18:22	0.431620
3269628	731227	RUN 3 19	1.807	1.506	0.794147396	794.1473956	28.5	8/20/2003	6:24:02 PM	8/20/03 18:24	0.432616
3269633	731169	RUN 3 20	1.3	1.564	0.736101885	736.1018846	28.5	8/20/2003	6:25:48 PM	8/20/03 18:25	0.433843
3269652	731055	RUN 3 21	0	1.681	0.618997259	618.9972588	28.4	8/20/2003	6:28:19 PM	8/20/03 18:28	0.435590

Average Time 0.420233
 Average Time in Hours 10.085593
 Average Time in Seconds 36308.136364

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

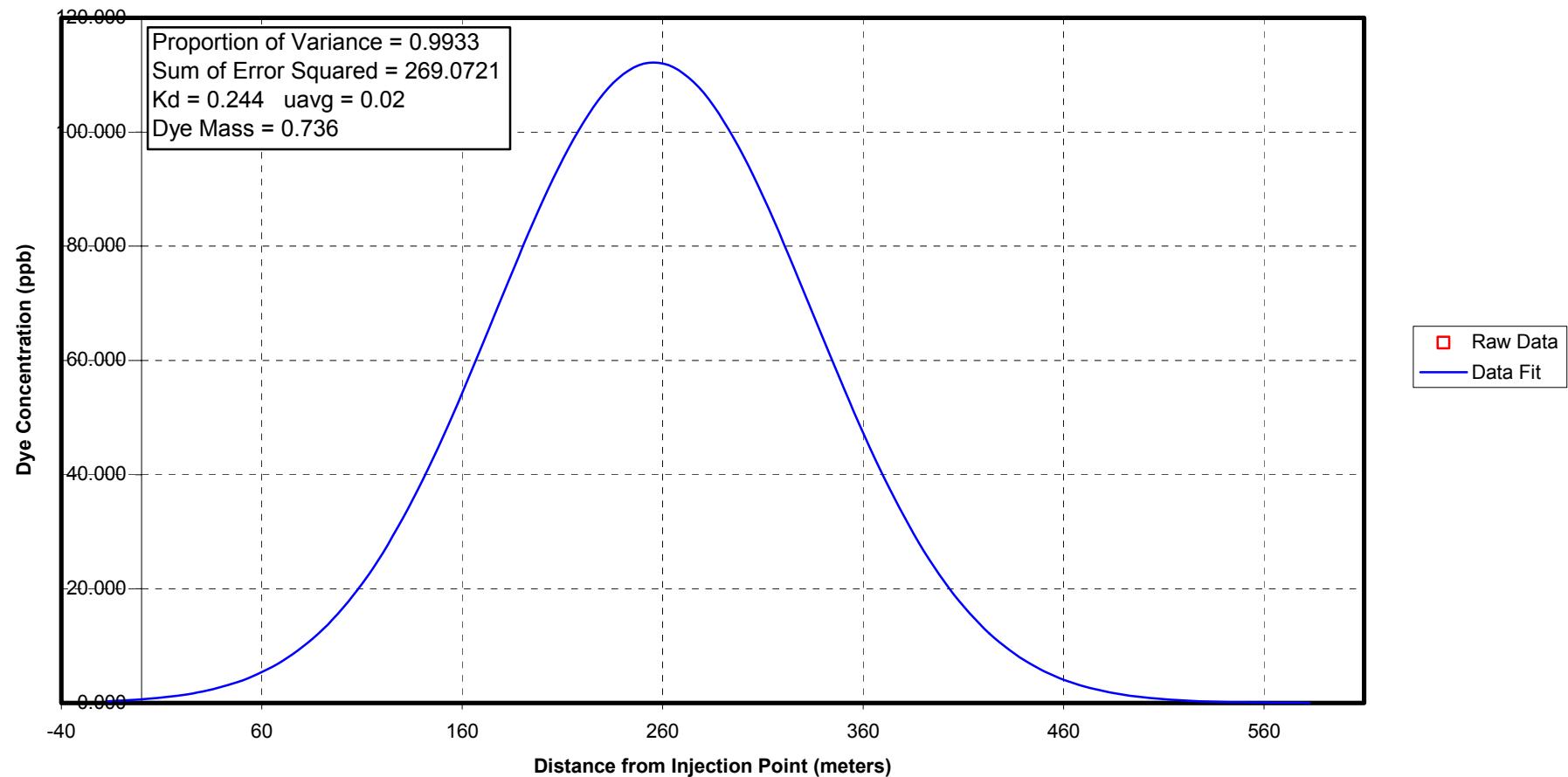
User Inputs For Run 1	Depth of Stream (meters)	1.174	Run Dispersion Routine
	Width of Stream (meters)	28.042	
	Time Elapsed Since Dye Injection (sec)	12942	
	¹ Mass of Solution Injected (kg)	20.000	
	Number of Iterations	10	
² Initial Guess	K_d : Diffusion (m^2/s)	0.5000	

¹Mass of solution injected is multiplied by 0.2 since the solution is 20% dye²Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss–Newton algorithm

Observed Dye Data For Run 1	
f(X): Concentration (ppb)	X: Distance From Injection Point (meters)
0.000	533.5189541
2.650	449.1350879
10.910	420.1891861
32.000	384.766983
52.700	348.0575988
90.200	319.053471
103.600	282.4642169
103.600	241.0772664
89.500	195.1515508
53.500	152.9918053
17.700	115.5964274
8.020	85.92889023
0.100	32.61855469

Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Non Linear Regression of Dye Data For Run 1



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

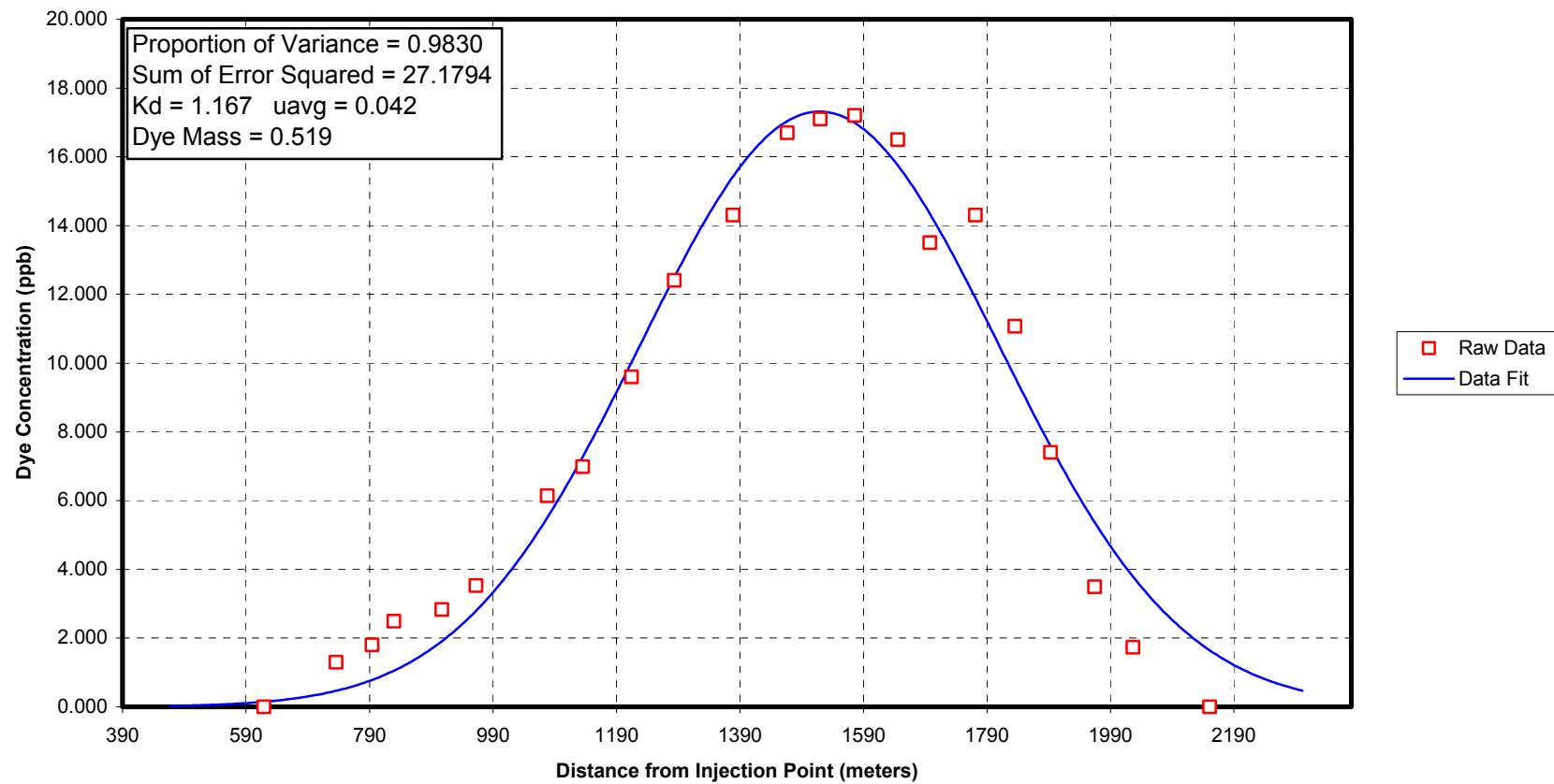
User Inputs For Run 3	Depth of Stream (meters)	1.380	Run Dispersion Routine
	Width of Stream (meters)	29.760	
	Time Elapsed Since Dye Injection (sec)	36308	
	¹ Mass of Solution Injected (kg)	20.000	
	Number of Iterations	10	
Initial Guess	K _d : Diffusion (m ² /s)	0.5000	

¹Mass of solution injected is multiplied by 0.2 since the solution is 20% dye²Initial guesses must be chosen carefully chosen since they control to a great degree the success and rate of convergence of the Gauss–Newton algorithm

Observed Dye Data For Run 3		
f(X): Concentration (ppb)	X: Distance From Injection Point (meters)	
0.000	2150.365058	
1.732	2026.398217	
3.490	1964.407393	
7.400	1892.80358	
11.070	1835.404785	
14.300	1771.186528	
13.500	1697.355962	
16.500	1645.442217	
17.200	1575.714649	
17.100	1519.75038	
16.700	1466.59295	
14.300	1378.770339	
12.400	1283.500156	
9.600	1214.373912	
6.990	1135.297285	
6.140	1077.775737	
3.53	962	
2.83	907	
2.49	829	
1.81	794	
1.30	736	
0.00	619	

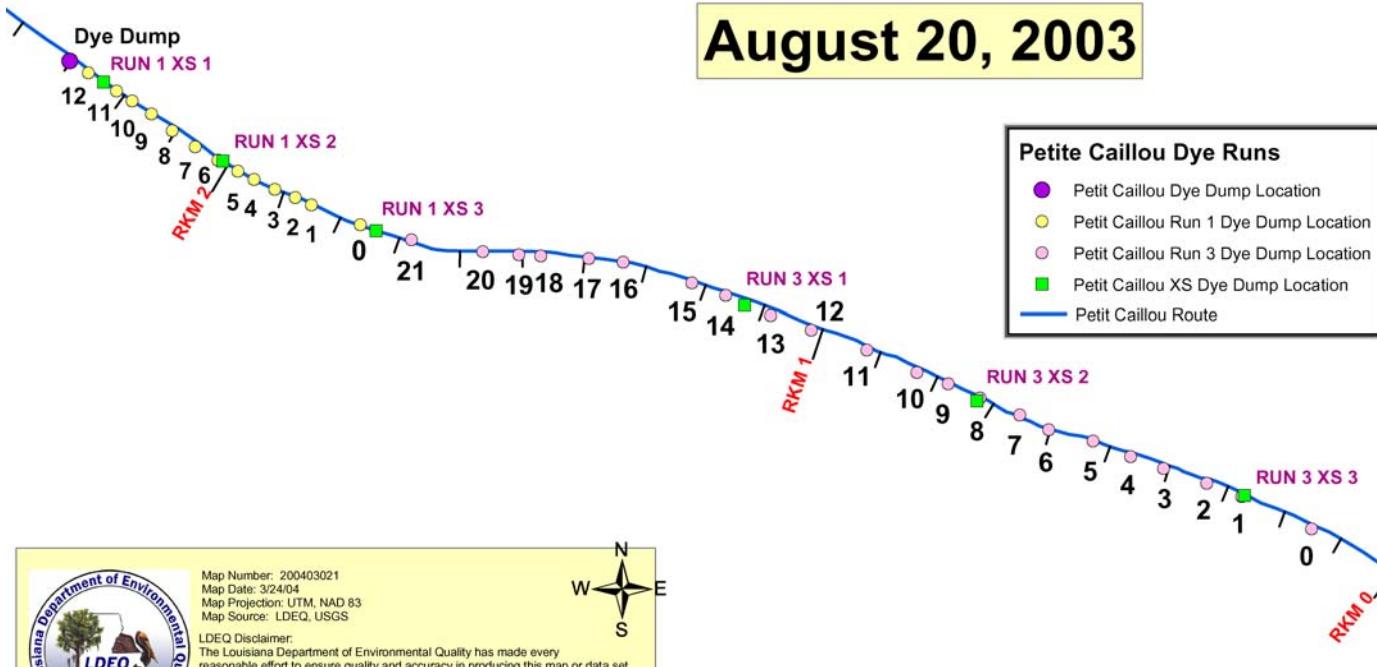
Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Non Linear Regression of Dye Data For Run 3



Bayou Petit Caillou Watershed TMDL
Subsegment 120503
Originated: November 21, 2004
Revised: December 17, 2004
Revised: January 7, 2005

Petit Caillou Dye Runs



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: Run 1 XS 1 Subsegment: 120503 Waterbody: Petit Caillou

Site Description: Petit Caillou Dye Study Run 1 XS 1

Type of Equipment: Fathometer Hydrotrac Manual

Initial Bank: RDB LDB

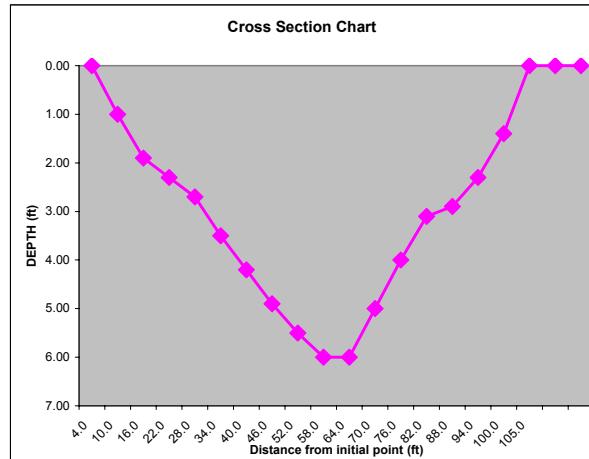
Tapedown: _____

Gauge Height: _____

Date: 8/19/2003

WIDTH ¹ (ft):	101.00
AREA ² (ft ²):	339.50
AVG. DEPTH ³ (ft):	3.36

Element Number	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as %
					Total Area ^{6 & 7}
1	4.0	0.00	0.00	0.00	0.00%
2	10.0	6.00	1.00	6.00	1.77%
3	16.0	6.00	1.90	11.40	3.36%
4	22.0	6.00	2.30	13.80	4.06%
5	28.0	6.00	2.70	16.20	4.77%
6	34.0	6.00	3.50	21.00	6.19%
7	40.0	6.00	4.20	25.20	7.42%
8	46.0	6.00	4.90	29.40	8.66%
9	52.0	6.00	5.50	33.00	9.72%
10	58.0	6.00	6.00	36.00	10.60%
11	64.0	6.00	6.00	36.00	10.60%
12	70.0	6.00	5.00	30.00	8.84%
13	76.0	6.00	4.00	24.00	7.07%
14	82.0	6.00	3.10	18.60	5.48%
15	88.0	6.00	2.90	17.40	5.13%
16	94.0	6.00	2.30	13.80	4.06%
17	100.0	5.50	1.40	7.70	2.27%
18	105.0	0.00	0.00	0.00	0.00%
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
	95.50		339.50	100.00%	



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: Run 1 XS 2 Subsegment: 120503 Waterbody: Petit Caillou

Site Description: Petit Caillou Dye Study Run 1 XS 2

Type of Equipment: Fathometer Hydrotrac Manual

Initial Bank: RDB LDB

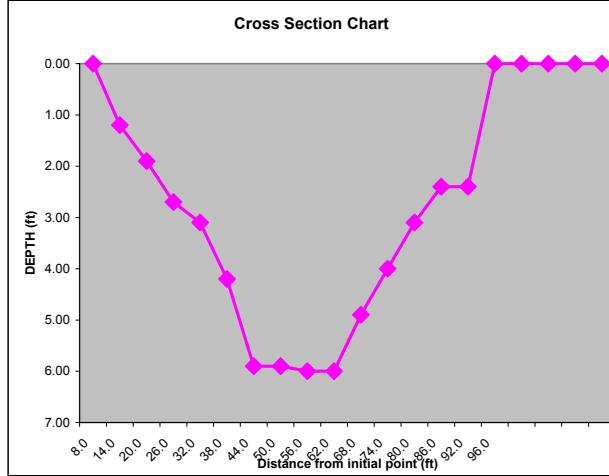
Tapedown:

Gauge Height:

WIDTH ¹ (ft):	88.00
AREA ² (ft ²):	319.80
AVG. DEPTH ³ (ft):	3.63

Date: 8/19/2003

Station number	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	8.0	0.00	0.00	0.00	0.00%
2	14.0	6.00	1.20	7.20	2.25%
3	20.0	6.00	1.90	11.40	3.56%
4	26.0	6.00	2.70	16.20	5.07%
5	32.0	6.00	3.10	18.60	5.82%
6	38.0	6.00	4.20	25.20	7.88%
7	44.0	6.00	5.90	35.40	11.07%
8	50.0	6.00	5.90	35.40	11.07%
9	56.0	6.00	6.00	36.00	11.26%
10	62.0	6.00	6.00	36.00	11.26%
11	68.0	6.00	4.90	29.40	9.19%
12	74.0	6.00	4.00	24.00	7.50%
13	80.0	6.00	3.10	18.60	5.82%
14	86.0	6.00	2.40	14.40	4.50%
15	92.0	5.00	2.40	12.00	3.75%
16	96.0	0.00	0.00	0.00	0.00%
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
		83.00		319.80	100.00%



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: Run 1 XS 3 Subsegment: 120503

Waterbody: Petit Caillou

Site Description: Petit Caillou Dye Study Run 1 XS 3

Type of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

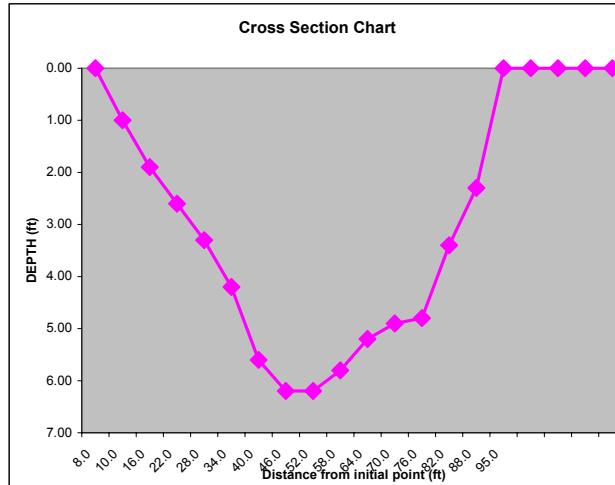
Tapedown:

Guage Height:

Date: 8/19/2003

WIDTH ¹ (ft):	87.00
AREA ² (ft ²):	343.60
AVG. DEPTH ³ (ft):	3.95

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	8.0	0.00	0.00	0.00	0.00%
2	10.0	4.00	1.00	4.00	1.16%
3	16.0	6.00	1.90	11.40	3.32%
4	22.0	6.00	2.60	15.60	4.54%
5	28.0	6.00	3.30	19.80	5.76%
6	34.0	6.00	4.20	25.20	7.33%
7	40.0	6.00	5.60	33.60	9.78%
8	46.0	6.00	6.20	37.20	10.83%
9	52.0	6.00	6.20	37.20	10.83%
10	58.0	6.00	5.80	34.80	10.13%
11	64.0	6.00	5.20	31.20	9.08%
12	70.0	6.00	4.90	29.40	8.56%
13	76.0	6.00	4.80	28.80	8.38%
14	82.0	6.00	3.40	20.40	5.94%
15	88.0	6.52	2.30	15.00	4.37%
16	95.0	0.00	0.00	0.00	0.00%
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
	82.52		343.60	100.00%	



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEETSite Number: Run 3 XS 1 Subsegment: 120503Waterbody: Petit CaillouSite Description: Dye Study Run 3 XS 1 Petit CaillouType of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

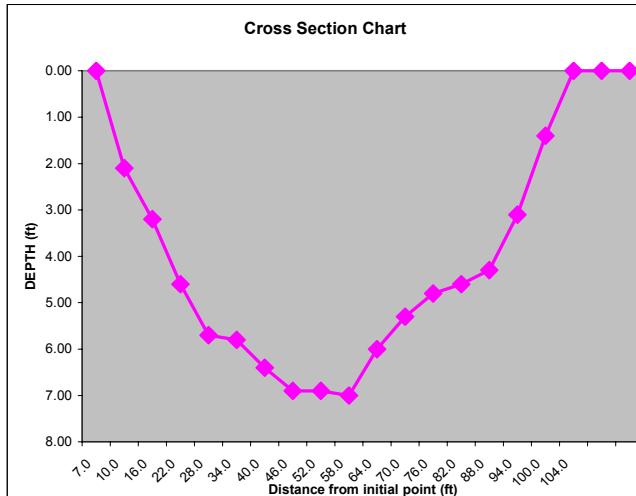
Tapedown:

Guage Height:

Date: 8/19/2003

Station	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	7.0	0.00	0.00	0.00	0.00%
2	10.0	4.48	2.10	9.40	2.03%
3	16.0	6.00	3.20	19.20	4.14%
4	22.0	6.00	4.60	27.60	5.95%
5	28.0	6.00	5.70	34.20	7.37%
6	34.0	6.00	5.80	34.80	7.50%
7	40.0	6.00	6.40	38.40	8.28%
8	46.0	6.00	6.90	41.40	8.92%
9	52.0	6.00	6.90	41.40	8.92%
10	58.0	6.00	7.00	42.00	9.05%
11	64.0	6.00	6.00	36.00	7.76%
12	70.0	6.00	5.30	31.80	6.85%
13	76.0	6.00	4.80	28.80	6.21%
14	82.0	6.00	4.60	27.60	5.95%
15	88.0	6.00	4.30	25.80	5.56%
16	94.0	6.00	3.10	18.60	4.01%
17	100.0	5.00	1.40	7.00	1.51%
18	104.0	0.00	0.00	0.00	0.00%
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
	93.48		464.00	100.00%	

WIDTH ¹ (ft):	97.00
AREA ² (ft ²):	464.00
AVG. DEPTH ³ (ft):	4.78



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEET

Site Number: Run 3 XS 2 Subsegment: 120503

Waterbody: Petit Caillou

Site Description: Petit Caillou Dye Study Run 3 XS 2

Type of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

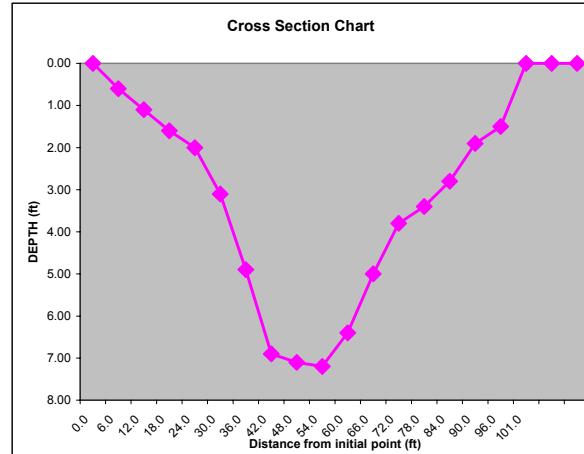
Tapedown:

Guage Height:

Date: 8/19/2003

WIDTH ¹ (ft):	101.00
AREA ² (ft ²):	355.10
AVG. DEPTH ³ (ft):	3.52

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6&7}
1	0.0	0.00	0.00	0.00	
2	6.0	6.00	0.60	3.60	1.01%
3	12.0	6.00	1.10	6.60	1.86%
4	18.0	6.00	1.60	9.60	2.70%
5	24.0	6.00	2.00	12.00	3.38%
6	30.0	6.00	3.10	18.60	5.24%
7	36.0	6.00	4.90	29.40	8.28%
8	42.0	6.00	6.90	41.40	11.66%
9	48.0	6.00	7.10	42.60	12.00%
10	54.0	6.00	7.20	43.20	12.17%
11	60.0	6.00	6.40	38.40	10.81%
12	66.0	6.00	5.00	30.00	8.45%
13	72.0	6.00	3.80	22.80	6.42%
14	78.0	6.00	3.40	20.40	5.74%
15	84.0	6.00	2.80	16.80	4.73%
16	90.0	6.00	1.90	11.40	3.21%
17	96.0	5.53	1.50	8.30	2.34%
18	101.0	0.00	0.00	0.00	0.00%
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
	95.53		355.10	100.00%	



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

STREAM CROSS-SECTION SPREADSHEETSite Number: Run 3 XS 3 Subsegment: 120503 Waterbody: Petit CaillouSite Description: Petit Caillou Dye Study Run 3 XS 3Type of Equipment: Fathometer Hydrotrac ManualInitial Bank: RDB LDB

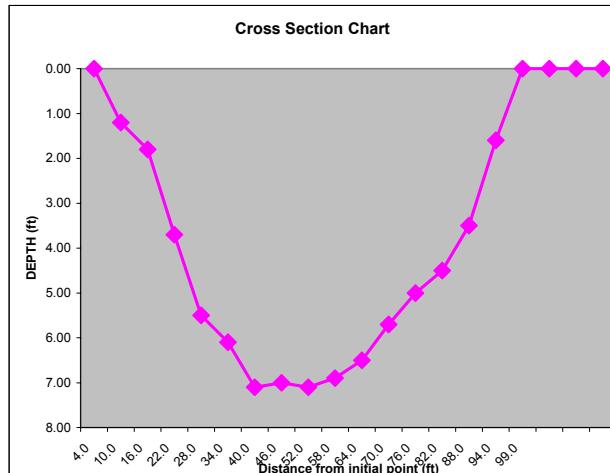
Tapedown:

Guage Height:

Date: 8/19/2003

WIDTH ¹ (ft):	<u>95.00</u>
AREA ² (ft ²):	<u>438.40</u>
AVG. DEPTH ³ (ft):	<u>4.61</u>

Subsection	Distance from initial point (ft)	Width ⁴ (ft)	Depth (ft)	Area ⁵ (sq.ft.)	Area of element as % of Total Area ^{6 & 7}
1	4.0	0.00	0.00	0.00	0.00%
2	10.0	6.00	1.20	7.20	1.64%
3	16.0	6.00	1.80	10.80	2.46%
4	22.0	6.00	3.70	22.20	5.06%
5	28.0	6.00	5.50	33.00	7.53%
6	34.0	6.00	6.10	36.60	8.35%
7	40.0	6.00	7.10	42.60	9.72%
8	46.0	6.00	7.00	42.00	9.58%
9	52.0	6.00	7.10	42.60	9.72%
10	58.0	6.00	6.90	41.40	9.44%
11	64.0	6.00	6.50	39.00	8.90%
12	70.0	6.00	5.70	34.20	7.80%
13	76.0	6.00	5.00	30.00	6.84%
14	82.0	6.00	4.50	27.00	6.16%
15	88.0	6.00	3.50	21.00	4.79%
16	94.0	5.50	1.60	8.80	2.01%
17	99.0	0.00	0.00	0.00	0.00%
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
		89.50		438.40	100.00%



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix D – Historical and Ambient Data

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix D1 – Ambient Data

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Critical Temperature and DO Determinations:

SITE NUMBER: 939

SITE DESCRIPTION: Bayou Petit Caillou at Klondyke Bridge, Louisiana

	Summer Season			Winter Season		
90th Percentile Temperature(°C):	29.85			23.40		
90 % DO Sat (mg/L):	6.82			7.66		
Months:	May	To	Oct	Nov	To	Apr
Date	Water Temp. (°C)	DO (mg/L)				
12/19/2000	10.90	8.19				
11/14/2000	16.50	4.90				
10/17/2000	22.00	6.36				
9/19/2000	27.30	2.67				
8/22/2000	30.80	5.70				
7/25/2000	28.70	1.40				
6/20/2000	28.90	5.65				
5/23/2000	28.00	3.90				
4/25/2000	24.00	4.46				
3/28/2000	22.80	6.60				
2/22/2000	18.70	5.85				
1/25/2000	13.70	7.15				

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix D2 – Projection Flow Calculations

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Critical Tidal Flow for Petit Caillou 120503

Waterbody	Length of Reach (miles)	Average Width (Feet)	Tidal Range (Feet)	Tidal Period (Hours)	Surface Area (Square Feet)	Tidal Volume (Cubic Feet)	Average Tidal Flow (CFS)	Percent Traveling down Petit Caillou	Tidal Flow (CFS)	Tidal Flow (CMS)
Bayou Terrebonne from ICWW to confluence with Bayou Petit Caillou	3.47	110	1	12	2,015,376	2,015,376	46.65222	50%	23.32611	0.660595
Bayou Petit Caillou from Headwaters with Terrebonne to Klondyke Road Bridge	5	98	1	12	2,587,200	2,587,200	59.88889	100%	59.88889	1.696053
							Total Tidal Flow		83.215	2.356649
							Critical Flow		27.74	0.786
Critical Flow = 1/3 Total Tidal Flow										

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix D3 – Land Use

LDEQ Basin Subsegment 120503 - Bayou Petit Caillou USGS Louisiana GAP Land Cover

Map Date: 12/09/03
Map number: 200301108
Map sources: LDEQ basin-subsegment data,
USGS Louisiana GAP Data
Map projection: UTM Zone 15; NAD 27



GIS Center

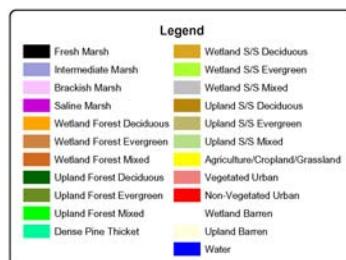


0 0.25 0.5 1 1.5 2 Miles



Terrebonne Basin

Subsegment 120503



LDEQ Disclaimer: The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore, LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.

Land Use Summary

Subsegment 120503

Data Source Name: LA-GAP June 2000

Date Analyzed: 5/4/2004

<i>Grid Name</i>	<i>Area (Acres)</i>	<i>% Land Use</i>
Agriculture/Cropland/Grassland	1320.36	42.27
Non-Vegetated Urban	3.11	0.10
Upland Forest Mixed	0.22	0.01
Upland S/S Mixed	6.00	0.19
Vegetated Urban	721.23	23.09
Water	176.36	5.65
Wetland Forest Deciduous	896.69	28.70

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix E – Recommended (TMDL)

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix E1 – Summer TMDL Summary

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Summer TMDL Summary:

Petit Caillou (SUBSEGMENT 120503)

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	MOS Load (kg/day)
Point Source loads	0					0
Headwater / Tributary loads		75	83	47		205
Benthic loads		148	29	150	348	554
Incremental Loads		0	0	0		0
SUB-TOTAL	0	223	112	197	348	759
<i>TMDL = WLA + LA + MOS</i>				948 kg/day		

Notes:
(1) - Load(lbs/day) = Load(kg/day) × 2.205

Calculation of the TMDL - Pounds per day							
Load description	WLA (lbs/day) (1)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day) (1)	MOS Load (lbs/day) (1)
Point Source loads	0					0	0
Headwater / Tributary loads		164	183	104		452	112
Benthic loads		326	64	331	767	1,222	304
Incremental Loads		0	0	0		0	0
SUB-TOTAL	0	490	247	435	767	1,674	416
<i>TMDL = WLA + LA + MOS</i>				2,090 lbs/day			

Notes:
(1) - Load(lbs/day) = Load(kg/day) × 2.205

Calculation of the TMDL - Kilograms per day						
Load description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	MOS Load (kg/day)
Point Source loads	0					0
Natural Nonpoint Loads	0	0	0	0	0	0
Mannmade Nonpoint Loads	222	112	76	348	759	189
SUB-TOTAL	0	222	112	76	348	759
<i>TMDL = WLA + LA + MOS</i>				948 kg/day		

Calculation of the TMDL - Pounds per day							
Load description	WLA (lbs/day) (1)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day) (1)	MOS Load (lbs/day)
Point Source loads	0					0	0
Natural Nonpoint Loads	0	0	0	0	0	0	0
Mannmade Nonpoint Loads	490	247	168	767	1,674	417	417
SUB-TOTAL	0	490	247	168	767	1,674	417
<i>TMDL = WLA + LA + MOS</i>				2,091 lbs/day			

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix E2 – Winter TMDL Summary

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Winter TMDL Summary:

Petit Caillou (SUB SEGMENT 120503)

Calculation of the TMDL - Kilograms per day								
Load description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	NBOD (kg/day)	LA (kg/day)	MOS Load (kg/day)
Point Source loads	0						0	
Headwater / Tributary loads	65	71	41			177	44	
Benthic loads	148	28	150	225		431	108	
Incremental Loads	0	0	0			0	0	
SUB-TOTAL	0	213	100	191	225	608	152	

$$\text{TMDL} = \text{WLA} + \text{LA} + \text{MOS}$$

Calculation of the TMDL - Pounds per day							
Load description	WLA (lbs/day) (1)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day) (1)	MOS Load (lbs/day) (1)
Point Source loads	0					0	
Headwater / Tributary loads		144	157	89		390	97
Benthic loads		326	64	331	496	950	238
Incremental Loads		0	0	0		0	0
SUB-TOTAL	0	470	221	420	496	1,340	335

$$\text{TMDL} = \text{WLA} + \text{LA} + \text{MOS}$$

$$1,675 \text{ lbs/day}$$

Notes:
(1) - Load(kg/day)= Load(g/day)/2.205

Calculation of the TMDL - Kilograms per day							
Lead description	WLA (kg/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (kg/day)	MOS Load (kg/day)
Point Source loads	0					0	
Natural Nonpoint Loads	0	0	0	0		0	
Mannmade Nonpoint Loads	213	100	70	225		607	152
SUB-TOTAL	0	213	100	70	225	607	152

$$\text{TMDL} = \text{WLA} + \text{LA} + \text{MOS}$$

Calculation of the TMDL - Pounds per day							
Load description	WLA (lbs/day)	CBOD1 LA (kg/day)	CBOD2 LA (kg/day)	NBOD (kg/day)	SOD LA (kg/day)	LA (lbs/day)	MOS Load (lbs/day)
Point Source loads	0					0	
Natural Nonpoint Loads	0	0	0	0		0	
Mannmade Nonpoint Loads	470	221	154	496		1,338	335
SUB-TOTAL	0	470	221	154	496	1,338	335

$$\text{TMDL} = \text{WLA} + \text{LA} + \text{MOS}$$

$$1,673 \text{ lbs/day}$$

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix F – Mapping

Bayou Petit Caillou Watershed TMDL

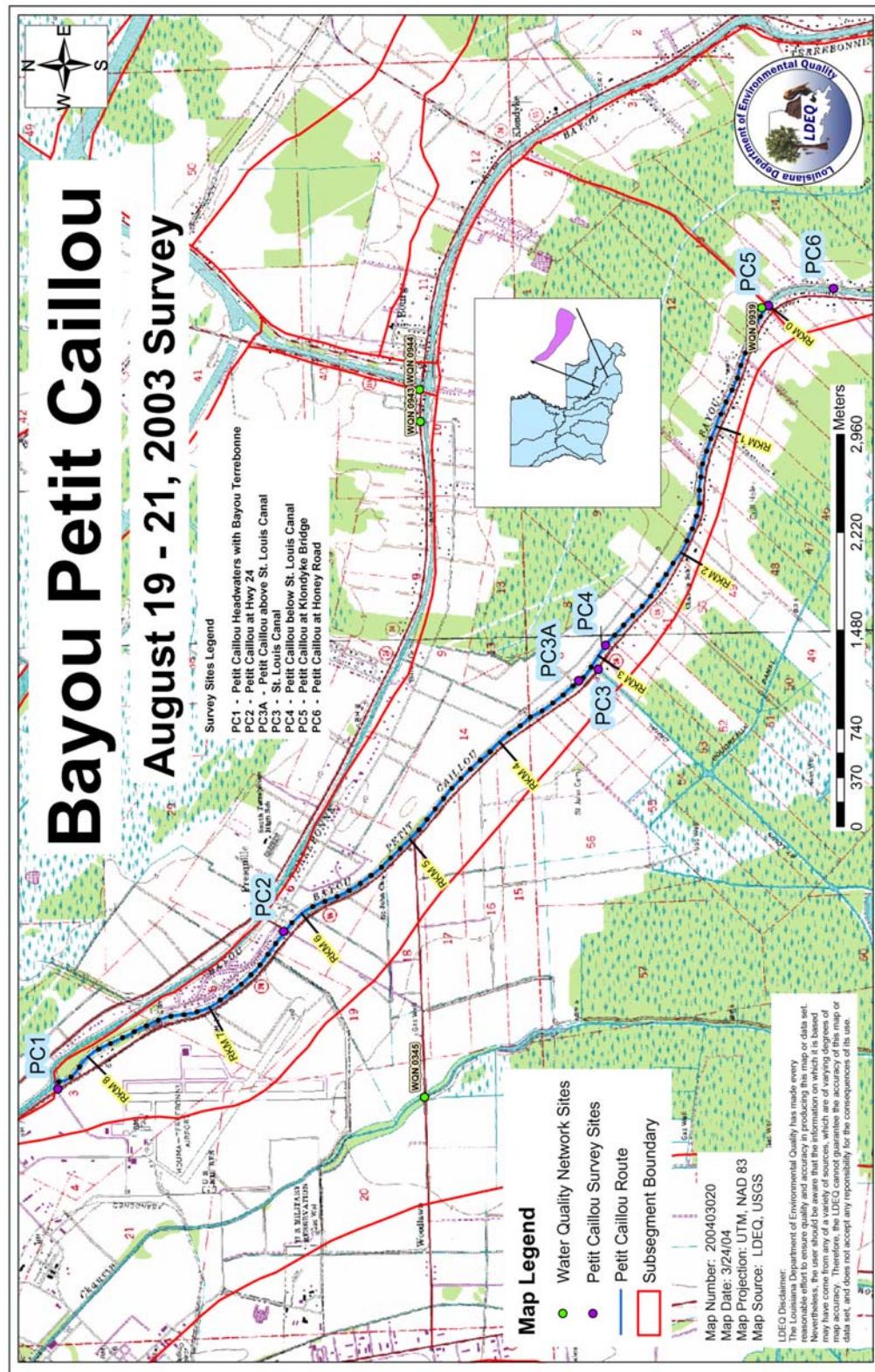
Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix F1- Overview map



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

Revised: December 17, 2004

Revised: January 7, 2005

Appendix F2 – Land Use Map

LDEQ Basin Subsegment 120503 - Bayou Petit Caillou USGS Louisiana GAP Land Cover

Map Date: 12/09/03
Map number: 200301108
Map sources: LDEQ basin-subsegment data,
USGS Louisiana GAP Data
Map projection: UTM Zone 15; NAD 27



GIS Center



Terrebonne Basin

Subsegment 120503



LDEQ Disclaimer: The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore, LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.

Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

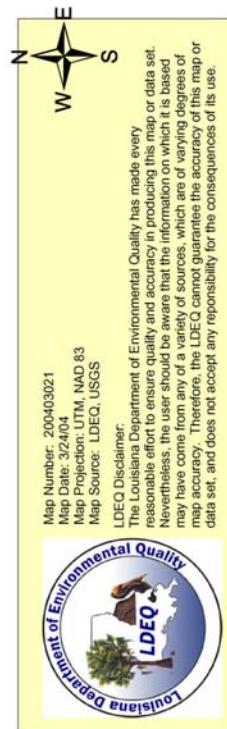
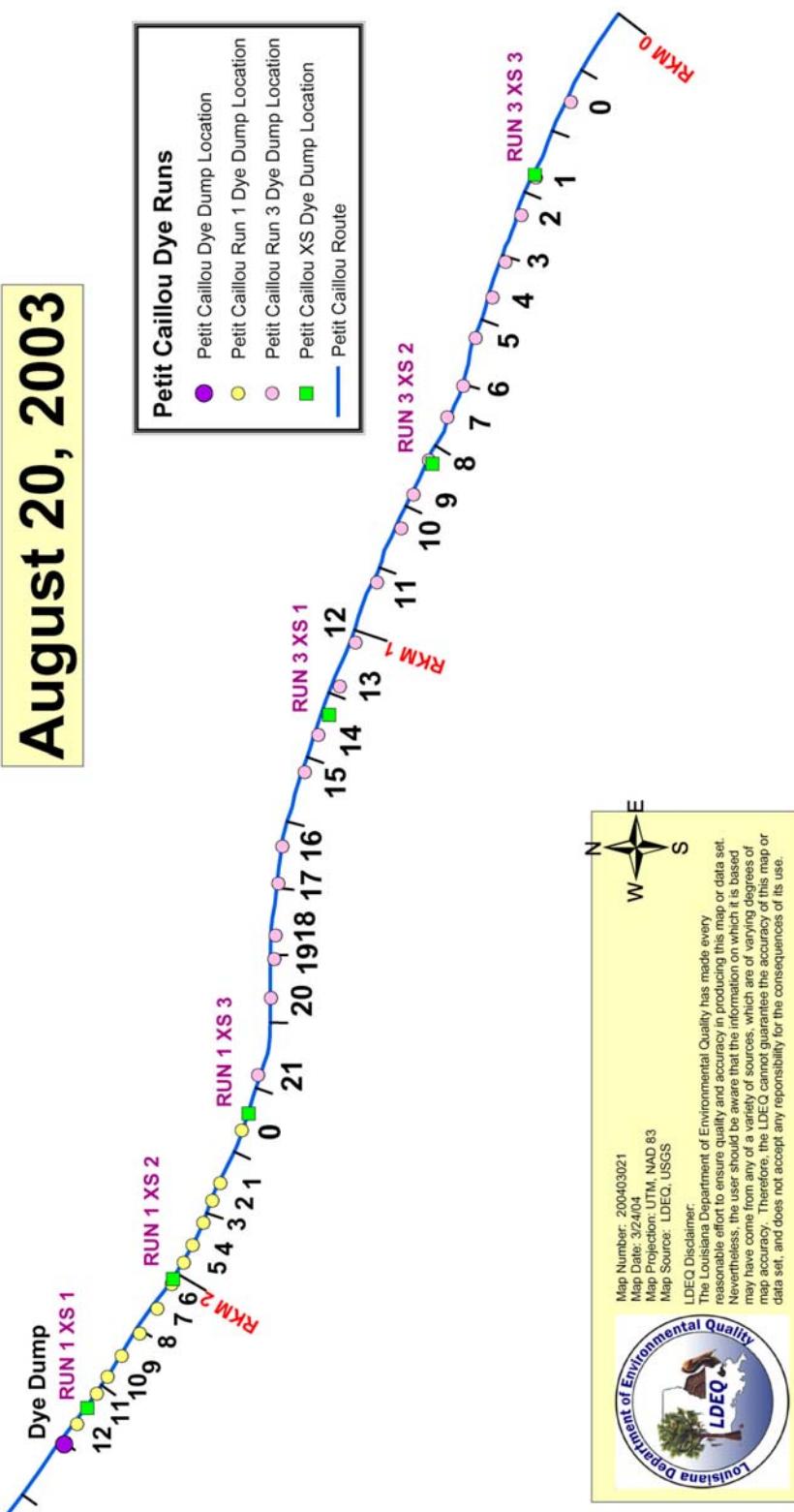
Revised: December 17, 2004

Revised: January 7, 2005

Appendix F3 – Dye Study Map

Petit Caillou Dye Runs

August 20, 2003



Bayou Petit Caillou Watershed TMDL

Subsegment 120503

Originated: November 21, 2004

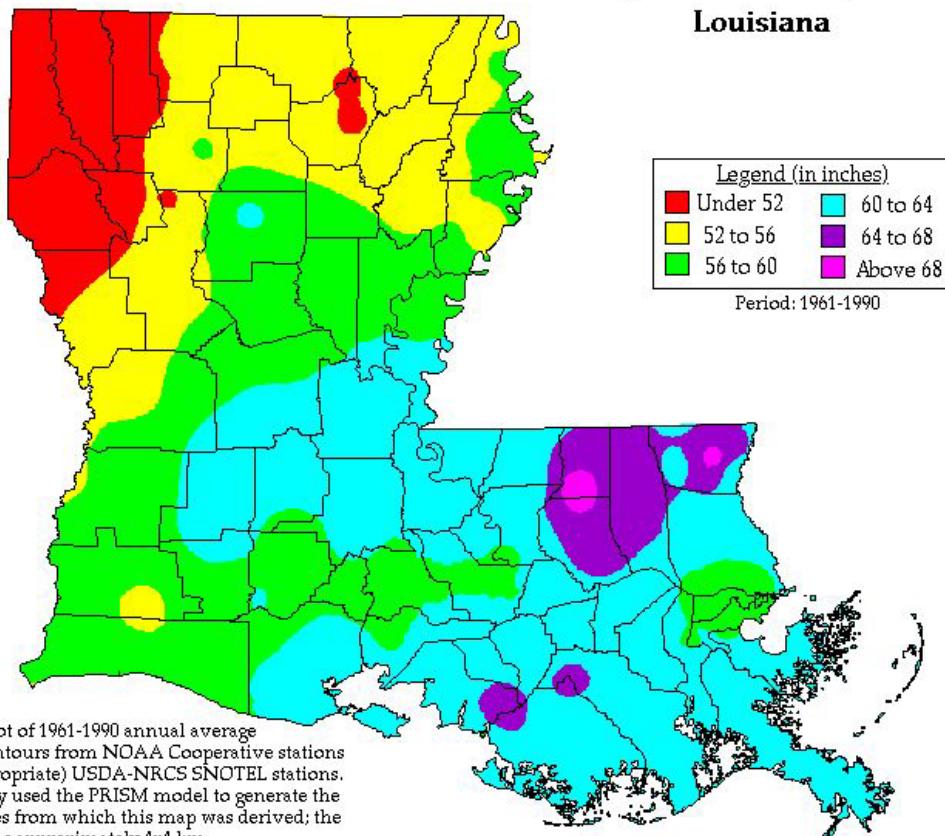
Revised: December 17, 2004

Revised: January 7, 2005

Appendix F4 – LA Precipitation Map

Average Annual Precipitation

Louisiana



This map is a plot of 1961-1990 annual average precipitation contours from NOAA Cooperative stations and (where appropriate) USDA-NRCS SNOTEL stations. Christopher Daly used the PRISM model to generate the gridded estimates from which this map was derived; the modeled grid was approximately 4x4 km latitude/longitude, and was resampled to 2x2 km using a Gaussian filter. Mapping was performed by Jenny Weisburg. Funding was provided by USDA-NRCS National Water and Climate Center.